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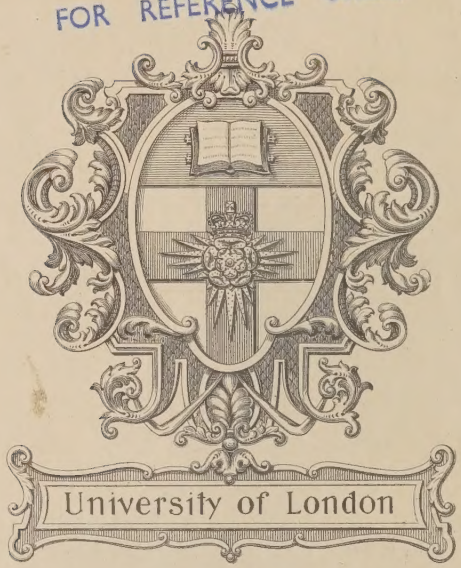

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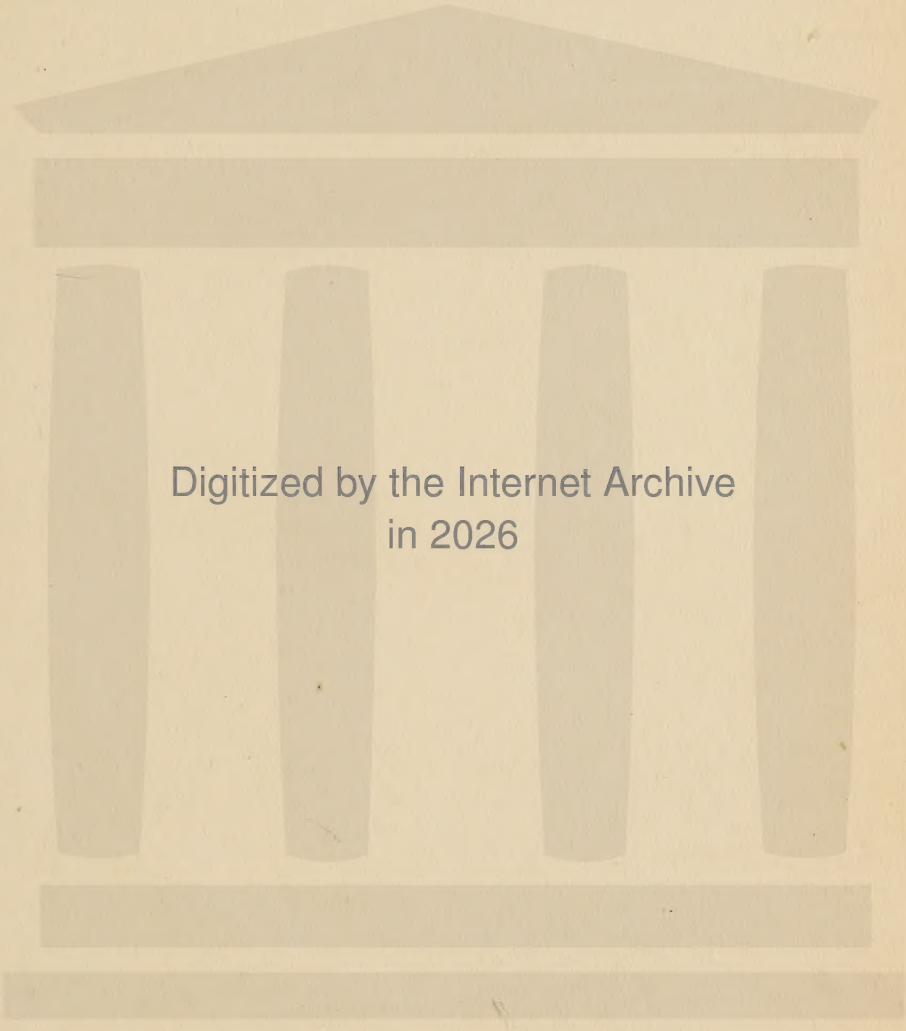
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REPORT

FROM THE

SELECT COMMITTEE

ON THE

Office of Works and Public Buildings.

Ordered, by The House of Commons, *to be Printed,*
19 *June* 1828.

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REPORT

From the Select Committee on the Office of Works and Public Buildings.

THE SELECT COMMITTEE appointed to inquire into the State of the PUBLIC BUILDINGS in the Department of the OFFICE OF WORKS, under Statute 54 Geo. 3. c. 157.; and into the application of part of the Land Revenue of the Crown, under Statute 6 Geo. 4. c. 77. and under 7 and 8 Geo. 4. c. 68. for the management and improvement of the Land Revenues of the Crown in Ireland; and into the Works now in progress, under 7 Geo. 4. c. 77. for improving Charing-Cross, and for granting Leases of the site of Carlton Palace; and to report the same, with their Observations, to The House,

BEGAN their Inquiry into the mode of conducting the Business of the Office of Works, by examining the Surveyor General; who informed Your Committee, that soon after the passing of the Act 54 Geo. 3, c. 147, a Code of Instructions was drawn out by the Commissioners of the Treasury, and laid before Parliament, in conformity to the 9th section of that Statute; and that no alteration of any consequence has been made since. This Code, dated 10th March 1815, is printed and preserved among the Miscellaneous Accounts and Papers of the Session 1815.

The regulations under which Public Works and Buildings were previously carried on, form the subject of an elaborate Report from the Commissioners of Inquiry into the conduct and business of that department, printed 3d June 1813, (N° 258), and preserved among the several Reports of Commissioners in that year.

It was enacted in 1782, by the 22d Geo. 3, c. 82, which suppressed the then existing Board of Works, together with several other offices, that all His Majesty's buildings hitherto under the management of that Board, should be under the direction of an Architect or Builder by profession, as Surveyor or Controller of the Works; which office was held for many years by Sir William Chambers, and after his death by Mr. Wyatt; but the want of punctuality and exactness of the latter in keeping his accounts, and the extreme disorder into which they had fallen, gave occasion, in 1814, to new regulations, by the introduction of the system under which that Office is now conducted.

The intention of the framers of that Act appears to have been, to establish an efficient control and superintendence in the Surveyor General, attaching to his office a council of three of the most eminent Architects, to assist and advise him by their united talent, in all such matters, either of design or execution, as might require the knowledge and skill of persons professionslly educated.

A salary of 500*l.* was assigned to each of them, and their commission upon new buildings conducted under their direction was settled at 3*l.* per cent, instead of 5*l.*, which is the usual charge of architects; but they were relieved from the expense of clerks of the works, and of making out the accounts and bills of the workmen, which occur when they are employed in the usual course of their business.

Upon reference to the Evidence it will be seen, that for conducting the works both at Buckingham Palace and Windsor Castle, the commission to be received is the full commission of 5*l.* per cent, although the business of measuring and settling the accounts is conducted and paid by the Office; the grounds of which allowance are stated in the correspondence, and the Treasury Minutes contained in the Appendix. Mr. Nash's salary of 500*l.* is not paid during the progress of the works at the Palace.

The three attached Architects are certainly not excluded by the 6th section of the Act from undertaking and conducting Public Works, but it does not seem to have been designed or contemplated that they should be exclusively employed; nor that separate and distinct divisions of the Metropolis should be allotted to them, as in severalty, so that one only of this council (if it may be so denominated) should be referred to, or consulted, within the limits of his peculiar province, without any professional competition or concurrence.

Objections might undoubtedly be raised against referring the designs and plans of one of these three Architects to the other two, for their examination and criticism, on account of that difficulty and delicacy which very properly exist among men of high reputation in the same profession, and belonging to the same department, who would naturally be unwilling to give opinions or suggest corrections upon the works of their colleagues; but the effect of this system has been, and must continue to be, the narrowing and limiting the choice of those who are to determine upon the general taste and character of public Buildings, whose judgment ought to be assisted by some variety and diversity of design, and some increase in the power of selection.

The faculty of originating and inventing what is excellent in Architecture, as in every thing else, is undoubtedly confined to few; but many of those who are at all conversant in works of art, particularly if they have had opportunities of observing the best examples of ancient and modern architecture, are capable of forming a correct judgment upon designs or models which are placed before them, and will seldom fail to prefer the best to the worst. The inconvenience of this want of choice, supposing no more essential change to be made in the constitution of the Office, may certainly be obviated by directing each of the attached Architects to give a general notion or representation, or a slight sketch, of the style and character in which he would propose any public Building to be treated, which is either to be newly erected, or considerably enlarged or altered; and slight sketches might also be called for from other Architects of experience and reputation, so as to afford some opportunity of competition, without incurring the inconveniences attending unlimited tenders.

In all cases where any considerable work is to be undertaken, as soon as any one general Plan shall have been preferred and selected, it is indispensable that a Model should be constructed, showing both the elevation, and the internal accommodation and distribution of the whole; and that this model should be reconsidered and settled (with alterations, if necessary) before the work is begun. A correct Estimate should then be formed; and the commission of the Architect should not in any case be allowed upon the amount of expenditure beyond the original estimate; for no mode of payment can be more absurd or contrary to economy, than that of a per centage upon the ultimate charge, which makes it

the interest of those who conduct extensive works to render them as expensive as they can, and affords to them a premium upon their own unrestrained inaccuracy and extravagance.

A considerable difference of opinion exists with regard to the check and control over expense which the present system affords; and those parts of the conflicting evidence of Mr. Nash and Mr. Smirke, which relate to this specific point, exhibit the defect, and the advantages belonging to it. But it must be confessed, that the responsibility of the Architect is extremely diminished, when the examination of the several charges is taken out of his hands, as well as the measuring of the work, which is stated universally to be a source of great uncertainty and cavilling, and not unfrequently of imposition and overcharge. Mr. Nash distinctly says, that nothing is so unreasonable as to think that an Architect can be answerable in any way for his estimate, when he himself does not control the prices and make out the bills; and he avows his inability of judging how nearly the expense of the Palace has come to his estimate, because he has nothing to do with the measuring, or making out the accounts. A mode of proceeding which affords so plausible an excuse or justification for excess and deviation, (unless some great counterpoise can be alleged in favour of its utility in some other point of view), is hardly to be maintained or continued with advantage to the Public.

For the purpose of investigating this question and endeavouring to determine as to the present method of conducting public Works, Your Committee entered into further inquiries, and examined several persons of respectability and high character, as Architects and Builders, not connected with the Office of Works; among whom they found the same diversity of opinion as between the two Architects already referred to.

The preponderance of opinion, however, among those most capable of forming a correct judgment, who have been examined upon this question, is certainly in favour of the present practice of Contracts for Prices, as contrasted with Contracts in gross.

Mr. Wyatville, Mr. Harrison and Mr. Burton, give it a decided preference; but the contracts in gross are considered by Mr. Rowles and Mr. Cubitt as more advantageous to the employer, and not necessarily liable to the objections which are alleged against them. In the evidence of Mr. Rowles are also some detailed observations upon the Code of Instructions of 1815, well deserving of attention, and suggesting some improvements in that system.

The certainty of a Work being performed within the Sum allotted to it, is unquestionably a powerful recommendation to contracts in gross; but if, as it is alleged, such works are more liable to be slighted in the execution, and frauds are more frequently practised in carrying on and conducting the several parts; and if such frauds and evasions of the specifications are less capable of being detected than when works are undertaken under contracts for prices (which is the regulation in the Office of Works), the latter mode would certainly be preferable, even at an increased charge. But with the superintendence of clerks, of the works and other men bred to the profession, belonging to and dependent upon the office, and with such accuracy in the specifications as the ability and experience of the attached Architects cannot fail to insure, Your Committee consider, that the method which appears the most prudent and economical for individuals to adopt could not prove disadvantageous to the Public; and they are therefore inclined to think, that with precise specification and careful superintendence, and where all deviations from the original plan are avoided, the system of Contracts in gross might be found to be the least expensive.

Within the last fifteen or twenty years a larger field has been opened for Architectural talent and exertion, than at almost any other period of our modern annals; a greater number of Bridges and Churches, and of both public and private works upon an extended scale, have been completed, than in an hundred years before. The appearance and convenience of the parts of this Metropolis to the North of Pall Mall and Piccadilly, have been much improved by the grand line of Regent Street, and the buildings leading to and connected with it; of which the general design and many of the details are excellent; but on the other hand it may be observed, with regret, that the taste and style of some of the public edifices do not indicate such a state of improvement as might have been desired and expected from the increased opportunities which have been thus afforded.

It would be an inviduous and unpleasant task to criticise the labours of living Architects, who have deservedly risen to a distinguished station in their profession; and it is only with regard to such parts of their productions as they profess themselves dissatisfied with, and condemn, that your Committee venture to express their full concurrence in those unfavourable opinions; but in some of these it must be observed, that much of the defect is to be attributed to changes and alterations in their plans, even during the execution of the buildings, and to a want of due consideration and determination upon the entire edifice before any portion was begun.

The inconvenient line of the new Council Office, both in Downing Street and Whitehall, discordant from the lines of those streets, and encroaching most awkwardly and incommodiously upon the foot pavement of the latter, (if it should be continued,) could hardly have been resolved upon, if all the consequences attendant upon that design, in relation to the line of street and the height of the adjoining and neighbouring buildings, had been laid before the Lords of the Treasury at one view, and the objections pointed out to them. The addition of the Pavilion, towards Downing Street, was entirely an afterthought; and it now seems to require a corresponding and ornamented projection, which, if it be placed before the office of the Secretary of State for the Home Department, and kept in the same allignmeut, will essentially disfigure the fine street of Whitehall; or if returned upon an obtuse angle towards Melbourne House, will excite, in every observing passenger, a sentiment of regret that this inconvenience was not foreseen in the beginning, and obviated. It will be noticed in the evidence of Mr. Soane, that a second Pavilion, towards the Home Office, was never in his contemplation; but he produced to Your Committee a design for erecting a corresponding Pavilion on the other side of Downing Street, at the angle of King Street, with a building extending into King Street, similar to that in Whitehall.

The Council Office should have been much higher, if taste only were considered, as Mr. Soane acknowledges in his evidence, and his first design for a much less decorated building was made accordingly; but a desire of restricting the expense, which must have been incurred by making the rooms unnecessarily high, was one of his reasons, as he alleges, for not carrying the building to a more dignified elevation. A balustrade connecting the line of chimnies was, during a short time, placed upon the roof of this dwarfish front; but the Architect states, that he had nothing to do either with the putting it on, or taking it off.

Such is the unsatisfactory state in which this large and costly Structure stands, from being begun without a plan which had been maturely considered, from injudicious alterations and changes having been made during its progress, and contrary, as it appears by his own statement, to the opinion of the Architect;

Architect; but under whatever direction this work may have proceeded, there can be only one opinion of the work itself; and although your Committee cannot clearly ascertain to whom the blame attaches, the system cannot be good which has produced such a result. It therefore now remains a question, how it can either be left as it is, or how it can be completed on the end towards the North; for, as to the project of balancing it by a symmetrical and similar range of pavilion and building on the other side of Downing Street, in King Street, with a decorated arch connecting those two streets, such an addition will probably never be required for public utility, nor does it seem desirable that it should be ever carried into effect.

The name of Lord Viscount Goderich having been frequently mentioned in Mr. Soane's evidence relating to the new Council Office, Your Committee requested his Lordship to inform them as to his recollection of the circumstances connected with that building, which is given at length in his evidence. In this place it may be sufficient to observe, that with the exception of the line so inadvertently taken, the other defects could not have occurred, if the suggestion made by Lord Goderich in one of his conferences with Mr. Soane had been adopted, which was, to refer to the general design of Inigo Jones for the Palace of Whitehall, and to select such a division or portion from it as might be adapted, in the interior distribution, to the purposes of the Trade and Council Offices, and might adorn the street, by a front not discordant from the style and character of the only portion of that grand building which now remains, and decorates the opposite side.

Another larger and much more expensive Building, which is in progress for His Majesty's Palace in St. James's Park, is now undergoing very considerable alterations, not originally contemplated, for the purpose of rectifying a defect, which scarcely could have occurred, if a model of the entire edifice had previously been made and duly examined. Mr. Nash says, in answer to a question relating to the two detached three-windowed houses at the extreme angles of the wings, "I was not at first aware that the effect would have been "so bad; and I am sorry to say, that I was disappointed myself in the effect "of them." The consequence of this alteration, thus occasioned, will increase the interior accommodation by adding twenty-seven new apartments to the present numbers, but it is estimated at no less a sum than 50,000 *l.* With regard to the dome above the roof of the Palace, Mr. Nash deems it unfortunate that it is visible from the Park side, which was not intended by him, nor was he aware that it would have been seen except as belonging exclusively to the garden front.

It was proposed when this great work was first undertaken in 1825, under the title of repairing and improving Buckingham House, (6 Geo. IV. c. 77.) that the expenses, then estimated at 252,690 *l.*, should be defrayed out of the land revenue of the Crown, in the department of the Woods and Forests; but in consequence of extraordinary charges upon that revenue to a very considerable amount, some of which had not been foreseen or ascertained at the time of passing that Act, and also from the unexpected rapidity with which the alterations had proceeded at the Palace, the work must soon have been suspended for want of funds to continue it, if a supply from a source wholly unlooked for and unexpected, had not been advanced by orders from the Commissioners of the Treasury in aid of this deficiency. Your Committee conceive, that it does not come within their province to do more than to notice this transaction, as having enabled the Office of Woods and Forests to meet the heavy charge by

other resources than those which were by law appropriated to it. This supply amounted to 25,0000 *l.* What has hitherto been actually paid from the Land Revenue is 27,760 *l.*, in addition to that sum; and there is a probability that the surplus of that revenue will in this year be capable of affording about 60,000 *l.*, and in 1829 about 100,000 *l.* The Land Revenue varies from year to year, in consequence of fines upon renewals; but the whole, including that of the Woods and Forests, may be taken at about 200,000 *l.* a year.

The estimated charge for completing the whole Palace, is 432,926 *l.*, including the above sum of 277,767 *l.*, which has been already paid.

Upon the site of Carlton House, the several houses which are erecting for individuals must be conformable to a general design for the exterior, but the proprietors are at liberty to select their own architects or builders; and the annual rents which will accrue to the Crown from these new houses, are calculated at 6.452 *l.*, the particulars of which will be found exactly detailed in the evidence of Mr. Arbuthnot.

It was imagined by Mr. Nash, that a large sum would at once be raised by a sale of the greater part of these annual ground-rents to the proprietors of the houses, at twenty years purchase (the freehold being still retained by the Crown,) but that expectation having not hitherto been realized, no present pecuniary advantage of that sort having accrued to the Crown in aid of this undertaking, but on the contrary, a considerable and immediate charge having been incurred in forming the ground, making a large sewer, purchasing the land-tax, and other incidental outgoings, before any part of the annual rents has been received.

It is however stated, in Mr. Arbuthnot's evidence, that although the proprietors themselves may not choose to buy up their rents, it would be in the power of the Government to sell to any other individuals, such a proportion of them as it might be thought fit to dispose of.—By the Act 7 Geo. IV, c. 77, the Crown is authorized to take fines from the Lessees for any portion of their rent; which is a deviation from the usual practice with regard to other new buildings; nor is it the practice to alienate new buildings in fee; to which rule it appears expedient to adhere.

The expenditure upon the alterations in St. James's Park, which are in some measure connected with these new houses, amounts to 16,053 *l.* including the iron railing; but exclusive of the planting within the railing.

It is proposed to erect a Fountain, estimated to cost 8,000 *l.* with the addition of a large annual charge for a constant supply of water, in the centre of the continuation of Waterloo Place, towards the Mall, as will be seen in the evidence of Mr. Nash; which being the first instance of a fountain surrounded by columns, with a dome or covering over it, gave occasion to some questions from Your Committee, which appear in the evidence of Mr. Nash, together with his answers; and they cannot but here observe, that this Fountain, if it is to be encircled by a peristyle, and covered by a cap or dome, is not likely in itself to be an ornamental object, and that it would obstruct the opening, and the view of the Park from Regent Street and Waterloo Place.

A spacious and handsome flight of Steps in the centre of that Terrace, leading into the Mall, would form an ornamental and commodious communication between Regent Street and the Park, and would afford to the Public a very general accommodation, and an appropriate termination of that fine opening

opening. Your Committee are informed that the central division of St. James's Park, newly inclosed by iron rails, is intended to be open to the Public in the same way with the other parts of that Park.

Your Committee find, upon inquiry, that no sanction has hitherto been given by the Commissioners of the Treasury to the extension of the Plan engraved in the Journals of 7th June 1827, towards Marlborough House and St. James's Palace; and they cannot consider such an extension, nor any further encroachments upon the Park as fit to be recommended.

The fraudulent and scandalous manner in which the Foundation of the new Custom House was laid, occasioned, by its total failure in 1825, a charge of no less than £.170,000 or £.180,000, in addition to the original expenditure of £.255,000; but no part of this blame affects the Office of Works, nor the Architects attached to it. This great structure was unfortunately placed under the conduct of Mr. Laing, the person who happened, in the year 1813, to be Surveyor of Buildings in that department; a course which Your Committee conceive to be exceedingly objectionable, being of opinion that all works of this description should be carried on under the direction and management of the office specially appointed for the execution of such works; and they would animadvert more strongly on this point if they were not informed that the Treasury have already put a stop to the practice, and have now under their consideration some new regulations upon the subject. It is also to be observed, that no estimate was laid before the House, nor any sanction given by a vote, either before the undertaking or during the progress, the expense having been defrayed out of the revenue of the Customs. This mode of proceeding, although in conformity with the practice which has hitherto existed with respect to buildings occupied by the Revenue Departments, appears to be at variance with the general principles by which the public expenditure is governed, and to be open to much objection. They recommend therefore, that in future no new buildings for any of these departments should be undertaken except under the authority of a grant of Parliament, upon an estimate to be laid before the House for that purpose, as in the case of any other subject of miscellaneous expenditure.

No Department should be allowed to order any thing beyond mere incidental repairs, without referring to and receiving directions from the Office of Works. The enormous expense of the new Mint, and its excess beyond the estimate, which was noticed in 1810, by the Committee on Public Income and Expenditure, in their Seventh Report; and the more recent example of the Custom House, render this regulation and the strictest adherence to it indispensable.

The new Mews, fronting the North side of Westminster Abbey, has been erected at the expense of £.35,264, and the annual rents payable to the use of the Public, as part of the Land Revenue, will amount only to about £.3 per cent upon that sum. The reasons for making the exterior more ornamental and costly than the uses to which it is allotted require, are assigned in the evidence of Mr. Arbuthnot and Mr. Burton.

The Regent's Park presents a much better and more productive instance of management under the same department; and it must afford to the House great satisfaction to know that the laying out and planting of that extensive ground, together with the buildings upon it, which do so much credit to the taste and judgment of Mr. Nash, will also soon become a very profitable addition to the Land Revenue, the annual rent being £.15,000, and the remaining excess of expenditure beyond receipt being reduced to £.70,000.

The Improvements at and near Charing Cross and the Strand, under the statute 7 Geo. IV. c. 77, are in progress, and by much the greatest portion of the Property required for the purposes of that Act has been obtained. A considerable number of the old houses near St. Martin's Church has already been taken down, and new Buildings will almost immediately be commenced in that neighbourhood; but some further Purchases remain to be effected, in regard to which the Commissioners are proceeding without delay.

The particulars are detailed in Mr. Arbuthnot's evidence; together with an account of the sum already expended, and the estimated cost of the remainder.

While they are upon this subject, Your Committee venture to express a wish, that the present building of the Royal Mews at Charing Cross, the upper floor of which, being lighted by sky-lights, can, at a very small expense, be made available for a National Gallery, or other public purposes, may be preserved; and this matter becomes more deserving of immediate consideration from the very limited space of the present house in Pall Mall, allotted to the reception of pictures, which is now so crowded as to be incapable of admitting even one other picture of large dimensions.

The unnecessarily large expense of £.42,147. lately incurred for building and furnishing an Official Residence for the Secretary of State in the Foreign Department, leads Your Committee to observe the improvident application of public Money in this and other similar instances. There may be some few cases in which the constant and almost hourly business of an office requires the residence of some officer attached to it; but this does not seem to apply to this new expenditure in Downing Street, nor to the residences in Somerset Place, nor to those belonging to the Ordnance Office in Pall Mall.

If such houses are considered as a part of the salary annexed to particular offices, the expense incurred by the Public very much exceeds the benefit received by the individuals; a large annual charge is incurred for repairs; the succession of almost every new occupant gives occasion for some additions or alterations; and in residences and offices where furniture and fixtures are also provided, a more unlimited field of extravagance is opened, of which the specimen of £. 9,350. in this new House in Downing-street, and of £. 11,319. in the new Council Office and the adjoining apartments, afford examples, the recurrence of which ought to be avoided.

The great charge incurred for Furniture is so immediately connected with the Official Buildings, that Your Committee thought it deserving of particular notice; and they found that the considerable amount to which it had arisen in some of the late years had already attracted the attention of the Lords of the Treasury, and that a new regulation has been made by them, printed in Mr. Spearman's evidence in the Appendix, which appears well calculated to check extravagant charges on the part of the tradesmen who are employed in furnishing, and to prevent all misapplication or embezzlement of the furniture in the public Offices. The former mode of conducting this business, in the department of the Lord Chamberlain, was certainly defective in many respects, for there was no competition sought for, nor any comparison of charges from different tradesmen; nor was any further examination of the bills entered into than that of ascertaining that the several articles were furnished according to the estimate, the estimate having been made by the tradesman himself. A small per centage fee was paid by each tradesman to two controlling officers in the Lord Chamberlain's office when his bill was paid; but this fee is abolished since the 5th April 1828, under the new regulation.

The

The total sum paid in the last five years for Furniture, supplied and repaired for the two Houses of Parliament, the Courts of Law at Westminster, and the various public offices and official houses in London and Westminster, was £.142,356 *l.*

The Defects of the present system, under the Act of 1814, appear to be,

1st. Want of responsibility,

2d. Want of competency to decide,

3d. Want of choice and competition,

from which three causes proceed the erection of buildings unsightly and unsatisfactory, much confusion and variation, both in the planning and executing of them, and the expenditure of larger sums than are necessary.

1st. The Surveyor General, according to the present constitution of that office, is solely the channel of communication between the Commissioners of His Majesty's Treasury and the Architect: he exercises no judgment nor control, nor gives any opinion as to the work to be done, or the mode of doing it; confining himself to fixing prices, and making contracts accordingly, and examining and checking the accounts after they have been made out by the clerks of the works, and the measurers belonging to the office.

2d. The Surveyor General having no duty to perform in judging of the propriety or sufficiency of the design or plan, that important business is imposed upon the Commissioners of the Treasury for the time being, who may not always be competent to decide upon such matters; and although it may happen frequently that there are among them persons eminently conversant with works of Art, it may also happen that a very efficient Board of Treasury for all other and more important purposes, may be unfit for this; and in such a case the Architect of the district, without any real control or useful supervision, may plan and execute whatever is to be done, according to his own pleasure and discretion.

3d. No sufficient choice is afforded to the Board of Treasury, who are to judge and decide, for they have not even taken advantage of having three Architects attached to the office and paid by it; nor does it appear that they have hitherto at all encouraged the competition of other professional men, or called for any variety of designs.

This last inconvenience may undoubtedly be obviated (as has been before observed) without altering the Act of 1814; for the Board of Treasury may, if they think fit, require designs or slight sketches from each of the three Architects, before any considerable work is undertaken; and they may also increase their latitude of selection, by calling for designs from other professional men of known reputation and ability.

The appointment of a professional architect to the office of Surveyor General having been tried, and abandoned, is not again to be recommended, although it possesses the advantage of placing at the head of this department a responsible person, which the present method does not.

So much will always depend upon the qualifications of the persons who are placed at the head of any department, that it becomes extremely difficult to point out or contrive any regulations which can be confidently relied upon, under all circumstances; but Your Committee venture to suggest, that a considerable improvement may be effected in the existing system, without overturning, or remodelling, or even disturbing it to any great extent; and their recommendation upon the whole matter is this:—

That no public buildings should be hereafter erected, nor any considerable alterations in the structure of any of the existing buildings be adopted, except upon directions given by the Lords of the Treasury, and founded upon Minutes of that Board; and that the plans and estimates for all such new buildings or alterations of existing buildings, should be signed by at least three Lords of the Treasury, and be preserved in the records of that office:

That a commission, consisting of five persons, two of whom at least should be Privy Councillors, and holding some responsible offices, should be appointed by His Majesty to act as a council without salary, to advise the Board of Treasury upon all designs and plans for the erection or considerable alteration of public buildings:

That previously to the decision of the Board of Treasury on any designs, plans or estimates, to be signed and recorded by them as before suggested, the opinions and recommendations of this council for public buildings to be so appointed, should be laid in writing before the Board, and should be annexed to the plans and estimates approved of and recorded at the Treasury.

It will be seen by a reference to Lord Goderich's evidence, that some such assistant council as is here recommended, would in his opinion be of great service in enabling the Commissioners of the Treasury to judge and determine upon the designs for buildings which are laid before them.

Your Committee cannot conclude this Report in which they have deemed it necessary to offer so many observations concerning the unsatisfactory manner in which the erection of the public buildings is at present directed and superintended, without recommending to the immediate attention of His Majesty's Government the expediency of a revision of the existing regulations by which the conduct of that department is governed.

There are many points in the evidence accompanying this Report, suggested by professional persons of experience and judgment, which are deserving of consideration; and it appears that some useful reforms might be introduced into the code of instructions now in force for the guidance of that office, if a careful inquiry were made into the subject.

In suggesting that such an inquiry should be forthwith instituted, they desire to be understood, as not intending to convey the imputation of any blame upon the officer now at the head of that department, of whose diligence, fidelity and zeal in the execution of his duties, according to the existing instructions, they have learned nothing in the course of their examination which could induce them to entertain the slightest doubt.

19 *June* 1828.

MINUTES OF EVIDENCE.

WITNESSES.

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John Soane, Esq. - - -	p. 33, 36	*The Right Hon. C. Arbuthnot* -	p. 103
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Martis, 25° die Martii, 1828.

HENRY BANKES, ESQUIRE,

IN THE CHAIR.

Lieut. Col. *Stephenson*, Surveyor General of the Office of His Majesty's Works and Public Buildings, called in; and Examined:

Lieut. Colonel *Stephenson.*

25 March 1828.

UNDER what code of Instructions are you now acting in the Office of Works?—I have brought two copies, which I beg to deliver in; they go very minutely into the whole.

[*The same were delivered in:*]

These are printed in the Parliamentary papers of the year 1815; has there been any subsequent code?—None at all; there have been some few regulations emanating from them, but of a very trifling nature, chiefly for certificates which it was thought necessary to require from the clerks of the works, and likewise from the tradesmen.

At what time were separate districts appointed for each of the attached architects?—Almost immediately after the formation of the office, which was in the year 1814.

Has there been any variation in that allotment since?—None, that I recollect; the buildings were divided into districts for no other purpose than that of producing a regularity in the distribution of the duties of the architects; those districts were submitted to the Treasury; this distribution of the buildings is as follows: Mr. Nash's district, St. James's Palace, Carlton House, the King's Mews, Kensington Palace and Gardens, St. James's Park, the Green Park, Hyde Park, and Windsor Great Park. To Mr. Soane were allotted, the Queen's Palace, the buildings in Westminster, Whitehall, Hampton Court Palace, and Bushy Park.

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In Westminster, are included the Houses of Parliament and the Speaker's House. To Mr. Smirke were given, Windsor Castle, Greenwich Park, Somerset House, the British Museum, the Tower, the Mint, the Rolls House and Chapel, the Fleet Prison, the King's Bench Prison, and the Marshalsea Prison.

In the case of any new works being wanted in either of those districts, is any other architect except the district architect, called upon for plans?—Not unless ordered.

Has it happened in any case that other architects have been called upon?—Yes, for Windsor Castle, for the Queen's Palace, and for Hyde Park.

In consequence of what authority were any of those transfers made?—I do not know.

Was it by warrant under the sign manual?—No, not that I know of.

From whom did you receive directions with regard to Buckingham House, for instance?—I received none with regard to the plans for Buckingham House.

Did no part of that matter pass through your office?—None, except the direction from the Treasury to examine into some of the contracts, audit the accounts and pay the bills.

In the case of the works that went on in Westminster Hall and the space immediately adjoining, was that done by previous plan and estimate?—Yes.

You, as Surveyor General, first of all receive directions from the Treasury for ordering plans of such and such buildings?—Yes.

After you have examined them and have had estimates for them, you refer them back to the Treasury, probably?—No, the Treasury call for the plans in the first instance, and then, generally, the estimates are called for, after the Treasury have approved the plans. In instances of some smaller buildings, the plans and estimates have been called for together. When the Treasury have examined the plans and approved of them and the estimates, I receive directions for carrying the plans into execution.

Are the plans of large or new works universally first submitted to the Treasury?—Invariably.

You were understood to state, that it sometimes happens you are directed to take plans from a variety of architects, not being those attached to the office?—No; I do not recollect an instance of a direction to take plans from a variety of architects.

In what way were the plans for the Post-office first of all taken?—Plans were, I believe, advertised for; it was not till after all these plans had been examined, that Mr. Smirke was directed to make his plan.

Is there any case, then, in which you have been directed to receive plans from others than the established architects of the department?—None, that I recollect.

Was not that the case in respect of Windsor Castle?—A message was sent to me from Lord Liverpool, to desire that I should procure plans for Windsor Castle from the architects of the department; I received also a letter from the Treasury, directing Mr. Soane, Mr. Smirke, and Mr. Wyatville to deliver the plans they had been directed to make for Windsor Castle, sealed up and indorsed, into the Office of Works, when completed.

Did not Mr. Soane decline to make plans?—Yes.

In consequence of his declining, was not Mr. Wyatville called in?—I think not; Mr. Wyatville gave in his plan at the same time with the attached architects.

Have you the official superintendence of all buildings, excepting the Ordnance, Admiralty, and a portion of the Woods and Forests?—No; I have no superintendence over the buildings of the Excise and Customs, except what has arisen from the failure of the last building.

Have you not in your office any original plan or estimate of the Custom-house, when it was undertaken by Mr. Laing?—They were sent to the office in consequence of a reference from the Treasury, directing an inquiry into this building to be made by the architects of the office; I think all the accounts and plans were sent, but they were returned back again to the Custom-house.

It was not part of your duty to audit the accounts of the building of the Custom-house?—No; they were all made up in book, before ever I saw them, and had been in a great part paid.

As to the Post-office and other public buildings, do you audit the accounts?—Yes, of all buildings executed under the Office of Works.

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And it is not paid until it is certified by you?—No account is paid till it has been satisfactorily examined, and has been certified by me.

Were the original plans and estimates of the Post-office and Mint submitted to you?—Yes, those of the Post-office, but not the Mint; that building was finished before the Act for establishing the Office of Works had passed; since that period there has been a restoration of some buildings, in consequence of a fire, and also some additional accommodation was afforded during the last coinage.

Your office is also one of account as well as audit?—Yes; but the office cash accounts are all settled by the Auditors of Public Accounts.

Can your office furnish an account of what the Public Buildings have cost since the year 1815?—Yes; I believe it is now making out.

Do not you understand that since the failure of the Custom-house, buildings of that description are hereafter to be done under the direction of your department?—I have heard so; but I have had no official communication to that effect.

Are you aware that any thing has been done in respect of either of those departments, except under your direction?—I can speak only as to such parts of the Custom-house now rebuilding under the directions of Mr. Smirke; the buildings belonging to the Excise are not under the Office of Works.

You have no control over the Penitentiary?—None at all.

Mr. Smirke has now, has he not?—Yes; but he is not employed at that building under the Office of Works.

Were the accounts of the Penitentiary submitted to your Board?—No.

Do you know under what authority they were incurred?—I do not; I believe there are certain Commissioners who have the inspection of the Penitentiary accounts.

Under what control do you conceive the Office of Works to be?—Under the immediate control of the Treasury; I look upon myself to be responsible to that department for every thing connected with the Office of Works; all plans of new buildings emanate from the Treasury; I do not call for a new plan, but by the directions of the Treasury.

The architects submit all their estimates, and also their contracts, to your office?—The estimates they do, but the contracts are made in the office; and where the several tenders are opened in the presence of myself, the assistant surveyor general, the chief examiner, and the architect employed.

If there is a deviation from the original plan, how is that managed?—As the work is generally done by measure and fixed prices, it makes no difference as to the contracts, whatever deviation is made; but all great deviations from an original plan have the previous sanction of the Treasury, who at the same time authorize the additional expense.

By what rule have you established your prices?—The prices are regulated every month, if it is necessary; the mode of regulating them is by getting from the clerks of the works, from the architects occasionally, and from the merchants and dealers, the prime cost of the different materials, and upon these prime cost prices the tradesmen are allowed twelve and a half per cent profit. The office prices thus fixed, are submitted to the tradesmen, who are informed (I speak now of common repairs and alterations, not of new works) that these are the prices their works are to be charged at till a further alteration takes place. All accounts for works are delivered in blank, and the prices put in at the office. All works susceptible of measurement, are measured by the office clerks with the tradesmen. There are some articles of ornamental gilding, &c. the prices for which cannot be fixed by previous agreements; these must in a great measure depend as to their value upon the integrity of the tradesmen; but in such cases reference is always had to their own prime-cost books, and to the best further evidence that can be obtained.

You do not contract for a certain quantity of gilding?—Where it is common gilding, it is done; but in highly ornamented works it has not been found practicable.

In what way do you proceed to open this to public competition?—The mode generally adopted, and which I have considered the most satisfactory as well as the safest for Government, in this and in all other trades, is, to select a certain number of tradesmen of character and capital to execute the different works under this department. It is also customary not to allow a tradesman to undertake a contract for any work except in the trade he has been brought up in; but there are cir-

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cumstances where this rule cannot always be observed. These are some of the general rules under which new works are offered to competition, but there has never been open competition.

Never by public advertisement?—Never.

Do you contract for buildings in the gross?—Never, where it can be avoided, for great buildings; but some small plain buildings, have been contracted for in gross by the Office of Works, and I believe with some advantage.

From the experience you have had upon the subject, are you able to judge whether the contracting in gross is more or less economical?—I should not think there was economy in contracting in gross for a large building.

Is there not a person called a Builder, who unites the trades?—Yes.

You draw out your specification?—The specifications are made by the architects.

Do not you call on them for security?—No securities are called for.

You are aware that a great number of buildings are executed by a contract in gross, on a specification?—I have heard so; but I do not recollect any such contract having been entered into by the Office of Works for any extensive building, excepting for the Royal Mews at Pimlico.

You would contract with a carpenter for brick work, but not with a mason for carpenter's work?—Under such circumstances, I should prefer the carpenter to the mason; but where I had the option, I should certainly confine each to his own trade.

Were the original plan and estimate of the Post-office sent to your office?—They were.

And the same with respect to any other public building?—Yes, of all executed under the Office of Works.

If they exceed their estimate, that rests with the Treasury?—Excesses upon estimates in general arise from alterations directed to be made during the progress of the building; wherever that happens, it is reported to the Treasury, and generally with the additional estimate.

Then the Treasury, in fact, sanction that alteration?—Yes; but I have known instances where the Treasury has refused to allow such further alterations being made.

Where an alteration takes place, and an excess of estimate follows, that is under the authority of the Treasury?—Yes.

Have you any superintendence over the Public Buildings of Dublin or Edinburgh?—No.

Or of the ambassador's house at Paris?—Mr. Smirke was directed to go over, to make a report on the ambassador's house at Paris; which was sent to the Treasury; it was particularly recommended by him, that the work required should be done by a French architect.

What was the expense of Mr. Smirke's going over to Paris?—I cannot say at this moment, but it shall be furnished.

Who is authorized to make a change in a plan?—Whenever any material alteration is made, it is by the sanction of the Treasury.

In the cases of all public buildings, are the persons bound by estimates as to what the materials may come to?—They are not, I conceive, legally bound, but they enter into an agreement to do the work by measure, and by the prices that are fixed.

Then at the beginning of a building, when it is contracted for, you are not at all aware what it will cost at the end of it?—That can be only calculated from the estimate of the architect.

The architect makes an estimate, to which he is bound, of the expense of the building?—I do not know that he is legally bound.

To whom is that estimate submitted before it is sanctioned by the Treasury?—To no one; the architect himself calculates the expenses of his own building.

Who concludes the contracts?—The contracts for the different descriptions of work are made at the office.

Is there no rule against that?—No.

As soon as a plan for a building is approved of by the Treasury, it is sent to your office, and you direct an estimate to be made by the architect belonging to the district?—Provided the estimate has not been delivered in the first instance,

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with the plan; but the Treasury never order a building to be erected until they have approved of the estimate.

After a plan has been approved of by the Treasury, the estimate is ordered to be made by the architect belonging to the district?—By the architect who made the plan.

After that estimate is made, you proceed in the manner you have already described, to have the separate works allotted to persons able to execute them, not by contract, but in detail?—Yes; the architect gives his specifications for the different works; the tradesmen are then selected, to whom letters are sent, informing them that a specification is left at the office for them, to take copies if they please, and that they are to send their tenders at a certain day, at the opening of which they will attend.

They do not each contract for the whole of the work required, for a fixed sum, but they undertake to do it at fixed prices?—At prices previously fixed, and by measurement.

Are there not some tradesmen who have a degree of preference?—Not that I know of.

Why is Mr. Holroyd, for instance, called King's Plumber?—Because he holds an appointment under the office.

Do not you employ him on all the plumbing works for public business?—No, there are other plumbers belonging to the Office of Works.

Who are the particular persons you apply to?—In respect to new and great works, to no particular persons; any persons named to me as good tradesmen are desired to send in their tenders for the work, provided they are found to be men of capital; it is not every plumber who can be trusted with some particular descriptions of work.

You do not allow a plumber to send in his estimate, and then decide upon his character?—No, certainly not.

Of course the Treasury and the Board of Works have some general notion of the sum a public building is likely to come to before it is erected?—Certainly.

Does not it frequently happen that the sum a building costs exceeds the working estimate?—In some instances it does, but not generally; excepting from alterations.

Can you specify any instances?—I cannot at present.

Will you take the instance of Regent-street?—I had nothing to do with Regent-street.

The Post-office is not completed?—No.

Has the Council Office come to more money than the original estimate?—Yes.

Do you recollect the original estimate?—I cannot.

Has that excess been occasioned by alterations of the plan?—Yes.

Do you know of a considerable excess beyond the estimate, in buildings where there was no alteration of the plan?—I do not recollect any.

For instance, the restoration of the North end of Westminster Hall?—It was impossible to make any satisfactory estimate; there was a probable estimate of 20,000 *l.* sent to the Treasury; the stone was measured; but, from the nature of the repair, it was deemed necessary to execute the remainder by day-work.

Do you recollect whether the works done by Mr. Soane on the Courts of Justice in Westminster Hall came within the estimate, or very much exceeded it?—They are not entirely completed; I should think they come as near the estimate as possible. Where there is much work in a building that must be done in day-work, it has generally been found impracticable to form any very correct previous estimate of the cost of a building.

How could an estimate be made of the expense of any work, without that being done?—Any entire new work can and ought to be correctly estimated; but in old buildings it is difficult.

It is done in private life, why not in public?—I never could get any person to come within many pounds of the expense of such works, in private life.

Was not the renovation of the front of Westminster Hall precisely of that natu. which could have been effected by contract?—No; it was found advisable to execute that repair chiefly in day-work.

Was the work of renovating Henry the Seventh's Chapel done under your superintendence?—No, it was not.

The North end of Westminster Hall was done under your superintendence?—Yes.

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A great deal of that consisted in renovating the carved work?—Yes; with the whole of the North front.

Could not you have formed an estimate of the expense of renovating the carved work, by making the person, who did it, do a small portion of it?—I think not, as it was considered more advantageous to have the work executed as before described.

The check you have on the execution of the work ordered, is in the clerk of the works appointed by yourself?—The clerk of the works, in new works, is generally approved of by the architect; but the work is measured by the clerks in the office, who are not under the control of the architects.

Is the clerk of the works entirely independent of you?—No.

By whom is he appointed?—For new works he is selected, generally, by the architect, for he must be a man that he approves of; the appointment is made by me.

To whom is he responsible?—He is responsible to the architect, and is to follow the architect's direction.

Who is responsible for the quality of the materials that are put into every public building?—In all new buildings the architect is responsible; but in old buildings the clerks of the works are the responsible persons.

Have you no check on the architect in that respect?—I can have none.

Could you have none, if the person on the spot, who sees every article used, were under your direction and appointment?—I think it would be improper to take from the architect any responsibility for which he is paid his commission; and, in my opinion, he ought not to be released from this part of his responsibility.

Might not you make him responsible, and have a check of your own to ascertain whether he is negligent or not sufficiently vigilant?—I do not think in practice that is possible, so as to produce any beneficial effect.

Has an architect the power of discharging a clerk of the works, and appointing another after he has been approved of?—It has happened that an architect has disapproved of a clerk of the works, when another has invariably been appointed.

Who are the five clerks of the works mentioned in the regulations?—They have the charge of Hampton Court Palace, of Windsor Palace, Kew, and the general buildings in London, of which there are about a hundred and twenty to a hundred and thirty separate buildings.

They have the charge of the repairs?—Yes, and all common alterations.

Do you not exercise any check in the progress of the works, through any officer of yours?—None in new buildings, excepting the measuring and accounts; for I hold the architect to be solely responsible for the due execution of the works.

Do you not conceive it very difficult, after a work is completed, to ascertain the precise quality of the materials?—I conceive in all new buildings the architect is appointed for that purpose.

Is it not necessary, in order to ascertain the quality of materials in any new work, to have occasional checks in the progress of it?—I do not see how it is to be done without doing away with the responsibility of the architect.

Does the architect himself find any part of the materials?—No, not if he does his duty.

Does he do that in fact?—I have reason to suspect this has been done; but it is contrary to the practice of the profession.

Do you conceive there would be any objection to the public delivering over any work to an architect, and binding him to execute it at the sum specified in his estimate?—The objection in my opinion would be, that of endangering the interest of the public or the employer.

Are the clerks you send to measure, competent to give an opinion on the goodness of the materials?—I should think some might be capable of that, but they have another duty to perform.

Do they report to you when the materials are good?—No, for that the architect is alone responsible.

Are your measurers always upon the spot, so as to measure the materials before they are covered?—Certainly, for they cannot carry on the measurement when the work is covered.

But the measurer does not report on the quality?—No; I hold the architect responsible for every part of the building.

What do you call the responsibility of an architect?—Principally for the general design

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design of a building, the construction, the correctness of estimate, and for the materials and workmanship.

Have you any power to displace him?—I have none.

Who surveys the work, so as to judge whether the architect has performed his duty properly?—No one.

Is there any survey in the course of the work, or after it is finished, for that purpose?—None.

When you pull down an old building, how do you work in the old materials?—I have always had a great dislike to the working in of old materials, from a conviction that Government is, generally speaking, better served and with greater economy by selling the old materials by public auction and purchasing new.

When you select an architect, you put an entire confidence in him, and have no control whatever over him?—The architects are never selected by me; the office control in all new work consists in making the contracts, seeing that the accounts are properly made out and examined, that the work is properly measured, that the day-work is correctly taken; and to report exceedings upon the estimates, if any.

The interest of the architect is to spend as much money as possible; he receives a per-centage upon that?—He receives a per-centage upon the works executed.

Does he receive his per-centage on the work executed, or on the previous estimate?—He receives it upon the amount of the bills.

Supposing that the bills exceed the amount of the estimate, will he not receive his per-centage upon the bills?—The per-centage is paid upon the amount of the accounts as settled, and all exceedings upon previous estimates are reported to the Treasury.

Supposing that a work should be executed according to the first estimate, and it should be charged at a much higher amount than the estimate; upon which would he receive his per-centage?—Upon the amount of the bills.

Would it not be the interest of the architect therefore to make it come to as much as he could?—That would be his pecuniary interest, certainly.

You stated, that there are about 120 public buildings in London; they are composed of palaces, offices, residences, houses, courts of justice, and prisons?—Yes.

Can you furnish a list of them?—Yes.

[*The same was delivered in, and read; as follows:*]

A RETURN of the number of PUBLIC BUILDINGS under the superintendence of the Office of Works; stating the nature of those Buildings, their situation, and the purposes for which they are used.

WINDSOR CASTLE, &c. &c. &c.	The great Alterations and Improvements at this Castle, are under the immediate direction and control of Mr. Wyatville. The Buildings belonging to this Residence, under the superintendence of this Office, are as follows: The North side of the Castle, from the Great Entrance Westward; the Round Tower; the Store Tower; the Winchester Tower; the Housekeeper's House; the Houses of the Clerk of the Works and Labourer in trust; the Poor Knights Houses; the Stables, &c. All these several Buildings are appropriated for such uses as His Majesty may please to command.
WINDSOR GREAT PARK.	The Buildings in this Park, consist of—The Royal Lodge; Cumberland Lodge and Stables; Cranbourne Lodge, with the Garden, Buildings, and Walls belonging to the same; the Kennel for the Stag Hounds, with the Houses, Stabling, &c. belonging to that Establishment; the Keepers' Lodges; Boundary Walls; and several other detached Buildings. All of which are occupied as His Majesty may please to command.
HAMPTON COURT PALACE, &c. &c. &c.	This is a very extensive range of Buildings, occupying about Five Acres and three quarters of Ground. In addition to this, are the Stables and Garden Buildings, Hot and Forcing Houses, the Master Gardener's House, Lodgings for the Foreman of the Gardens, the Houses of the Clerk of the Works and Labourer in trust.

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HAMPTON COURT PALACE, (*continued.*)	In the Home Park is the Ranger's House, the Keepers' Lodges, with the Boundary Walls, some Sheds, and Out-buildings. These Premises are all appropriated by His Majesty's commands. This Palace is supplied with hard Water from the Springs at Combe Wood, conveyed by a line of pipes extending nearly Six miles.
BUSHY PARK.	In this Park are the Ranger's Lodge, Gardens, Stables, and Out-buildings; the Pheasantry; the Keepers' Lodges; Venison Houses, Sheds, and the Boundary Walls and Gates. The Lodge is occupied by His Royal Highness the Duke of Clarence. The Pheasantry is inhabited by a Mr. Ward; and the other Lodges by the different Park Keepers. In this Park are several Hovels, Sheds, and Forage Houses, with the necessary Gates, Walls and Fences; appropriated for the use of His Majesty's Stud Establishment. There are also several Bridges over the King's River, which supplies Hampton Court Palace with soft Water.
KEW:	Consists at present of the remaining Buildings of the old Palace; several detached Houses upon Kew Green, belonging to the King, in the occupation of His Royal Highness the Duke of Cumberland, His Royal Highness the Duke of Cambridge, the Labourer in trust, and others, by permission from His Majesty. In the Gardens are the Observatory, the Pagoda, the Master Gardener's House, those occupied by the Foreman of the Gardens, the extensive Hot and Forcing Houses; Glass Lights, Sheds, &c. in the Botanic, Kitchen, and Pleasure Gardens.
RICHMOND PARK:	Contains Her Royal Highness the Ranger's Lodge; the Deputy Ranger's Lodge, the Viscount Sidmouth; the thatched House occupied by Lady Stuart; a Lodge in the occupation of the Dowager Countess of Pembroke; the several Park Keepers Lodges, with the Gates, Sluices, and the Boundary Walls.
KENSINGTON PALACE.	Independently of the main Building, there are the Stable Buildings, and sundry other detached Houses, occupied by the King's Laundress, the Clerk of the Works, the Labourer in trust, and others, by permission from His Majesty. The Gardens are very extensive, containing numerous Hot and Forcing Houses, a Green House, the Master Gardener's House, Houses for the Foremen of the Gardens; several Garden Seats, Drains, and Pipes, with the Entrance Gates; Five Gardeners' Lodges, and a considerable extent of Boundary Wall, inclosing the whole of these Premises.
HYDE PARK.	In charge of this Office, are the Boundary Walls and Iron Railing, the Gate at the Western Entrance, and one of the Keeper's Lodges.
THE ROYAL MEWS at Pimlico:	An extensive range of Buildings, occupied by His Majesty's Horses, Carriages, &c. with sundry detached Houses in the occupation of the different Officers and Servants belonging to the department of the Master of the Horse.
ST. JAMES'S PARK.	There are Four Keepers' Lodges, a part of the Boundary Walls, Iron Railing, and Entrance Gates, now under the superintendence of this Office.
ST. JAMES'S PALACE.	The whole of this Palace is occupied by His Majesty, their Royal Highnesses the Duke of Clarence, the Duke of Cumberland, the Princess Augusta; and by the Offices, and the Attendants and Servants belonging to the Royal Household, with others, by permission from His Majesty.
THE NATIONAL GALLERY in Pall Mall:	Occupied by the Keeper and Servants in charge of the Collection of Paintings.
THE HOUSE N° 105 in Pall Mall	Is occupied by His Majesty's Servants in charge of the Furniture, &c. removed from Carlton Palace.
UPON THE SITE OF CARLTON PALACE	Remain the Stables, Coach Houses, the Riding House, Porter's Lodge, Gates, and Boundary Wall, with Apartments for the different Stable Servants.

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THE HORSE GUARDS.	In this Building are the Offices of the Commander-in-Chief, the Secretary at War, the Adjutant General, the Quarter-master General; a Barrack, Stabling, and Forage Rooms, for the Life Guards; the Orderly Rooms of the Foot Guards; the Sutling House; and Apartments for the persons in charge of the above Offices; with the Gates and Iron Railing. In this department are included the Recruit Houses in St. James's Park, and the providing of Sentry Boxes.
THE ARMY PAY OFFICE, WHITEHALL,	Contains a House for carrying on the Business of this department, and Apartments for the Housekeeper. The adjoining House is occupied by the Paymaster General.
THE ALMONRY OFFICE, Scotland Yard.	This House is occupied by the Secretary to the Lord High Almoner; and where the Business of this department is carried on.
THE OFFICE OF WORKS, Scotland Yard.	The Office Keeper has Apartments in this House; the remainder is occupied in carrying on the Business of the department.
THE ARMY MEDICAL BOARD, Berkeley-St. Piccadilly:	Where the Business of the Board is carried on; with Apartments for the Person in charge of the House.
THE COMPTROLLER OF ARMY ACCOUNTS, in Whitehall Yard:	Where the Business of the department is carried on; with a Lodging for the Person in charge of the House.
EXCHEQUER SEAL OFFICE, Whitehall Yard.	D° - - D°
CIVIL LIST AUDIT OFFICE, Whitehall.	D° - - D°
WHITEHALL CHAPEL.	Under this Chapel are some Apartments occupied by the Chapel Keeper.
Office of the Secretary of State for THE HOME DEPARTMENT, in Whitehall Street:	Where the Business of the department is carried on; with Apartments for the Persons in charge of the House.
TREASURY CHAMBERS, St. James's Park.	D° - - D°
THE NEW COUNCIL OFFICE AND BOARD OF TRADE, in Whitehall Street.	D° - - D°
A HOUSE in Downing Street.	The official Residence of the First Lord of the Treasury, and where he conducts the Business of his department.
A HOUSE in Downing Street.	The official Residence of the Chancellor of the Exchequer, and where he conducts the Business of his department.
THE SECRETARY OF STATE'S OFFICE for the Colonial Department, in Downing Street:	Where the Business of the department is carried on; with Apartments occupied by the Persons in charge of the Premises. The House adjoining is the official Residence of the Secretary of State for the Colonies.
THE SECRETARY OF STATE FOR FOREIGN AFFAIRS, in Downing Street:	Where the Business of this department is conducted; with Apartments for the Persons in charge of the Office, &c.
STATE PAPER OFFICE, Great George Street, Westminster.	D° - - D°
THE INDIA BOARD OF CONTROL OFFICE, Cannon Row, Westminster.	D° - - D° and where also the Commissioners for inquiring into certain Public Departments meet.
THE EXCHEQUER OFFICES, New Palace Yard:	Where the Business of the Exchequer is conducted; with Apartments for the Persons in charge of the Premises.

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THE SPEAKER'S HOUSE, St. Stephen's Court.	The official Residence of the Speaker of the House of Commons.
A HOUSE in Cotton Garden, Westminster.	The official Residence of the Chief Clerk of the House of Commons.
A HOUSE in New Palace Yard.	The official Residence of the Clerk Assistant to the House of Commons.
A HOUSE in Old Palace Yard.	The official Residence of the Clerk of the Journals of the House of Commons.
WESTMINSTER-HALL.	On the West side of this Building are the Courts of Chancery; the Vice-Chancellor's Court; the Court of King's Bench; the Court of Common Pleas; the Court of Exchequer; the Bail Court; the Rooms occupied by the Journals of the Court of King's Bench; the several Rooms for the Judges, the Counsel, the Grand Jury; with the Coffee-rooms, and Apartments for the several Court Keepers, and others, belonging to and in charge of these Premises.
THE HOUSE OF PEERS:	Including the Committee and other Rooms appropriated to the different Officers of the House; the Library; the Parliament Office; and Apartments occupied by different Persons belonging to and in charge of the Buildings.
THE HOUSE OF COMMONS:	Including the several Committee and Retiring Rooms; the Library, and the Housekeeper's Apartments.
A HOUSE, in Old Palace Yard.	The official Residence of the Clerk of Parliament.
A HOUSE, in Old Palace Yard.	The official Residence of the Assistant Clerk of Parliament.
JOURNAL OFFICE, Abingdon Street, Westminster.	In this House and the adjoining Tower are deposited the Journals, &c. belonging to the House of Peers; with an Apartment for the Person in charge of the Buildings.
CHAPTER HOUSE, adjoining the South Entrance into Westminster Abbey,	Contains Public Records. There is no Residence attached to this Building.
BRITISH MUSEUM, Great Russell Street, Bloomsbury.	The Building includes all the Rooms occupied with the Libraries, (excepting the Books removed to the new Building) the Prints, the Marbles, the Coins and Medals, the Minerals, the Collection of Natural History, &c.; with Residences for the principal Librarian, the Secretary and Keeper of Manuscripts, the Assistant D°, the Keeper of Printed Books, the Assistant D°, the Keeper of Coins and Medals, the Keeper of Natural History; with Lodgings for the Labourer in trust, the Porter, Messenger, and House Maids. *N.B.*—All these Buildings are exclusive of those now erecting under Mr. Smirke.
THE INSOLVENT DEBTORS' COURT, Lincoln's-Inn Fields.	This Building contains the Court, and the different Apartments necessary for the Business of the Court; with Lodgings for the Persons in charge of the Building.
A HOUSE upon the Adelphi Terrace.	The Solicitor of the Board of Taxes resides in this House, where he carries on the Business of his department.
SOMERSET HOUSE.	This extensive range of Buildings contains the Navy and Victualling Offices; the Tax, Stamp, Audit, Legacy Duty, Privy Seal, and Signet Offices; the Office of the Duchy of Cornwall; the Royal Academy; the Royal and Antiquary Societies; with official Residences for the Treasurer of the Navy, the Comptroller of D°, the Surveyor of D°, two Commissioners of D°, the Secretary of D°, three Commissioners of Victualling, the Secretary of D°, the Chairman of the Board of Taxes, the Secretary of D°; and Apartments for the Housekeepers, Messengers, Porters, &c. The Office of Works supplies Water, Gas Lights, and Watchmen, for these Buildings.
ROLLS HOUSE, in Chancery Lane,	Contains the official Residence of the Master of the Rolls; the Court, Chapel, Record Office; with Stabling, and sundry Out-buildings; including Gates, Iron Railing, and Boundary Walls.

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THE JUDGE-MARSHAL'S COURT, Scotland Yard,	Consists of the Court House; with a small Apartment in the adjoining House for the Steward of the Court.
CASTLE STREET.	A small House, the temporary official Residence of the Labourer in trust for the departments of Whitehall and Westminster.
LAND REVENUE AUDIT OFFICE, Spring Gardens:	Where the Business of the department is carried on. The Deputy Auditor resides in this House.
OFFICE FOR MILITARY BOARDS, Spring Gardens:	Where the Business of these Boards is carried on; with Apartments for the Housekeeper.
RECRUITING DEPARTMENT, Duke Street, Westminster.	D° - - D°
OFFICE OF MILITARY ACCOUNTS, Duke Street, Westminster.	D° - - D°
JUDGE-ADVOCATE GENERAL'S OFFICE, Crown Street, Westminster.	D° - - D°
STATIONERY OFFICE, James Street, Westminster.	Where the Business of the Office is carried on; and in which the Comptroller has Apartments.
THE FLEET PRISON, Fleet Market.	Attached to this Prison is a Residence for the Warden.
THE KING'S BENCH PRISON, St. George's Fields.	There is a House attached to this Prison in the occupation of the Marshal, which is kept in repair at his own private expense.
THE MARSHALSEA PRISON, High Street, Southwark.	To this Prison is attached a Residence for the Deputy Marshal.
NATIONAL DEBT OFFICE, in the Old Jewry:	Where the Business of the Office is carried on; with Apartments for the Person in charge of the House.
THE TOWER.	The Premises within the Tower, under the Superintendence of the Office of Works, are as follow: The Governor's House, occupied by the Deputy Lieutenant-Governor and Fort-Major; the Chapel; the Chaplain's House, occupied by the officiating Minister; a House occupied by the Master Gaoler; twenty-one Houses for the Warders of the Tower; a House occupied by the Labourer in trust; the Jewel Office, and Residence for the Keeper of the Jewels; the Yard, with Dens for the Lions, &c. and a House for the Keeper and Assistants; the White Tower, and adjoining Office, where the Public Records are kept, with Apartments for the Housekeeper. There are two Sutling Houses, and a House formerly belonging to the Clerk of the Works, but now let for 30*l.* a year, which Rent is carried to the credit of the Public.
THE ROYAL MINT, Tower Hill,	Is a very extensive range of Buildings, including all the necessary Accommodation for carrying on the Coinage of the Country; with extensive Boundary Walls, Guard Rooms, Porters' Lodges, Apartments for the several Persons in charge of the Buildings; and with the following official Residences: The Deputy Master, the Comptroller, the King's Clerk, the King's Assay Master, the Superintendent of Machinery, the Master Melter, the Weigher and Teller, the Chief Engraver, the Second D°, the Provost Moneyer, the Moneyer; six small Houses for the Mint Workmen; and sundry detached Sheds, for Coals, &c. &c.
GREENWICH PARK.	In this Park are, the Lodge occupied by Her Royal Highness the Ranger, the Keepers' Lodges; with the Boundary Wall, Gates, and Iron Railing.

Mem^m—THE new Buildings at Windsor Castle, the Palace in St. James's Park, the Post-office, the Custom-house, and the British Museum, are not included in this Return.

Office of Works, 28th March 1828.

B. C. Stephenson.

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Will you make a return of the excess in the erection of the Council Office and the buildings connected with it, and the causes of the excess?—Certainly.

[*The same was delivered in, and read; as follows:*]

STATEMENT of the Original ESTIMATES, compared with the specifying the Causes of

BUILDINGS.	ESTIMATES.		ACTUAL COST.	EXCESS.
THE COUNCIL OFFICE and BOARD OF TRADE.	First - -	£. 61,990		
	Second - - -	14,220		
		£. 76,210	*Vide* Remarks	*Vide* Remarks
THE COURTS OF JUSTICE in Westminster Hall.	First - -	£. 100,000		
	Second - - -	8,612		
		£. 108,612	*Vide* Remarks	*Vide* Remarks
THE NEW ROYAL MEWS, Pimlico.	First - -	£. 47,694		
	Second - - -	420		
	Third - - -	1,748		
	Fourth - - -	150		
	Fifth - - -	9,735		
	Sixth - - -	1,263		
	add,	61,010		
	Architect's Commission,	1,850		
	Pay of Labourer in trust,	269		
		£. 63,129	£. 63,181.	£. 52.
THE BRITISH MUSEUM - -	For East Wing -	£. 120,000		
	For additional Rooms, Warm Air Stoves, &c. - - -	5,900		
	For Furniture and Fittings - -	3,300		
		129,200		
	West Wing - -	95,000		
	Total -	£. 224,200	*Vide* Remarks	*Vide* Remarks
THE LEGACY DUTY OFFICE -	For the First Building,	£. 18,500		
	For the additional Building - -	6,000		
		£. 24,500	£. 24,805.	£. 305.
FOREIGN SECRETARY'S OFFICE, Downing street.	From the Year 1824 to Michaelmas 1827, inclusive - -	£. 7,641	£. 16,031.	*Vide* Remarks

Office of Works,
1st April 1828.

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ACTUAL COSTS of the under-mentioned Buildings;
Excess beyond the Estimates.

REMARKS, EXPLANATIONS, AND REASONS FOR THE EXCESS.

The settled Accounts for these Buildings, up to Midsummer 1827, amount to £. 69,239. 5. 2. The Accounts now making up in the Office, to Michaelmas, will amount to about £. 10,000. in addition, making an excess of about £. 3,000. The space on the ground floor under the Council Room is in an unfinished state, and Mr. Soane has not made any Estimate for the completion, not having been furnished with data for that purpose. For the Causes of the Excess upon these Buildings, see Extract of Mr. Soane's Letter submitted to the Treasury, and dated 12th Feb. 1828, in Appendix hereunto annexed, marked Letter (A.)

N. B.—The Estimate of the Building intended for the Board of Trade only, on the original design, was £. 17,200.

The settled Accounts for these Buildings, up to Midsummer 1827, amount to £. 97,145. 15. 9. The Accounts now making up in the Office, to Michaelmas 1827, will amount to about £. 500. which will complete the Building; leaving a balance in favour of the Public of about £. 10,967. which is applicable for providing proper accommodation to receive the Records, now deposited in Westminster Hall, the Plans for which will be submitted to the Treasury, as soon as they are completed.

These Buildings are still in progress. The settled Accounts, up to Midsummer 1827, amount to £. 147,656. 13. 8. The Accounts now making up in the Office, to Michaelmas last, will amount to about £. 10,000. making £. 157,656. 13. 8.; leaving a balance of £. 66,544. for the completion of the Two Wings.

The whole of the East Wing is finished, except the upper floor, which is nearly so.

The West Wing is in a very unfinished state.

There was unavoidably some uncertainty in the Estimates, as the Desks and Presses required for the service could not be described by the Principal of the Office but as the work proceeded, and the cost of these occasioned the Excess.

During the progress of these Works, Mr. Soane stated, that from the manner in which they were executed, by day and by night, and from the variety of Alterations in consequence of directions from different authorities, no probable conjecture could be formed of the Cost of Works so often altered in the progress, and therefore it was not possible to procure any supplementary Estimate that could be relied on; nevertheless, frequent opportunities were taken of representing, that these Expenses would necessarily exceed, very considerably, the sums originally authorized by the Treasury, but that the amount of such Excess could not be ascertained until the Works were actually completed.

B. C. Stephenson.

Appendix, Letter (A.)

EXTRACT of a Letter from Mr. *Soane*, dated 12th February 1828, explanatory of the Causes of Excess beyond the Estimates for the new Buildings of the Board of Trade and Council Office.

---- I BEG to observe, that when the original Estimate was formed, the Order of Columns, and the entire decoration of the Front, were much inferior, both in dimensions and richness, to those since directed to be used. The substitution of a highly enriched Order of Columns, in lieu of a plain one, caused of course a very material addition to the expense, not only to the Front itself, but likewise throughout the Building, arising, partly from the increased height, and partly from the necessary additional enrichment of other parts immediately connected with the highly enriched Façade. This applies particularly to the Front next Downing-street, which, in the original design, was intended to have been of brick, with stone dressings to the door and windows; but when the highest degree of architectural enrichment was adopted at one extremity of the Front, it became necessary, in order to avoid a glaring impropriety, to form the rest of the Front of stone, with a cornice and other decorations, somewhat analogous to those of the other portion of the Building.

In order to meet the additional expenses thus unavoidably incurred, and to provide for the requisite fittings, as nearly as could be anticipated, in November 1826, I transmitted an
£. 10,350. Estimate, amounting to Ten thousand three hundred and fifty pounds; together with an Estimate of the Expense of the proposed alteration of the end of the Building next the
£. 3,850. Home Department, amounting to Three thousand eight hundred and fifty pounds. These Estimates the Lords of the Treasury were pleased to approve; making the total amount of
£. 76,190. 14. 9. the Estimates, Seventy-six thousand one hundred and ninety pounds fourteen shillings and ninepence. From the present state of the Accounts, it is not possible to ascertain, with accuracy, what is the actual expense incurred; but it appears probable, that the total
£. 80,000. expenditure will not exceed Eighty thousand pounds, making an excess, beyond the Estimates
£. 3,800. approved, of Three thousand eight hundred pounds; and which sum, be it remembered, includes the cost of an infinite variety of alterations and additional works, which could not be foreseen by me,—sundry fittings in the basement story, and the setting of the whole of the grates, coppers, and other fixtures of a similar nature, throughout the two Departments.

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What is the reason that the Repositories for public papers in Westminster Hall still continue?—The plan of the building to receive them is not yet completed.

Have you any superintendence over the improvements in the Parks?—No.

Is the Post-office nearly finished?—It is.

Can you give now an estimate of the probable expense?—Yes; but there is much internal fittings to be done, of which no estimate can at present be made.

Are any Roads under your jurisdiction?—No; the Office of Works had the paving of Whitehall and Westminster, but this has been placed under the New Street Commissioners.

Can you furnish the estimate for the building of the Post-office?—Yes.

Has there been any variation of that plan?—Yes, there was, I believe, some little variation, but not to any considerable amount.

The expense that alteration would occasion was likewise the subject of an estimate, was it not?—Yes.

There has been an estimate of the building of the Post-office, what it would cost, but not any estimate with regard to the interior fittings-up?—Yes, of some of the official fittings.

Some of the interior fittings-up are included in the estimate of the building, are they?—No, they come according to the directions received from the Postmaster General, stating what fittings are necessary.

There would have been no difficulty in the Board of Works acquiring information what fittings-up they required at the beginning, would there?—Yes, because the Postmaster General could not ascertain what would be wanted.

Could not they have done that as well at the beginning of the work as now?—No, I think not.

Were not the rooms built with a view to their convenience?—Yes, certainly.

Are you to be understood that the course pursued in the Post-office is the course generally pursued in public buildings, that at the time the building is commenced the Treasury and the Board of Works have no notion what the interior fittings-up will cost?—Yes.

Is

Is that the general practice?—Yes, I should think it was.

Does not the estimate of the architect include what you call fittings, as part of the building?—To a great extent; what I refer to are the fittings-up for the clerks and officers.

All the wood work, and so on, is estimated?—Yes; but there are a great many fittings-up for the officers, the clerks and others.

In public buildings very considerable sums are laid out subsequently to the original plan, for those interior arrangements of which the Government have no knowledge as to the extent they will go to at the commencement?—Yes, for fittings, such as grates, stoves, bells, desks, presses and other articles of furniture.

Taking the instance of the Council Office, do you conceive the Treasury and the Board of Works were aware, when the estimate was laid before them, that it included the interior fittings-up of the building?—Certainly not; by interior fittings-up, I mean desks, forms and all moveables.

Do you include grates?—They are generally found by the Lord Chamberlain's department.

Does the estimate include the stucco work?—Yes.

What remains not estimated by the department is a very trifling part of it?—That depends on circumstances; I look upon it that the whole expense of the building is included, except the fittings for the different offices.

All, except the desks and forms and so on, are included in the original estimate?—Yes.

Have you any means in your hands of checking the architect, if you think he is exceeding the estimate considerably?—I am not generally aware of his exceeding his estimate, till I find it out by the bills.

Have you any means of preventing the payment of bills in such a case?—I have known no instance of it, but all great excesses are reported to the Treasury.

Are there no instances in which the estimate has been considerably exceeded?—Yes, in cases of alterations in plans.

In the Courts of Law, were the ceilings included in the estimate?—Yes.

Did each individual ceiling meet with approbation before it was put up?—I do not know; the architect was put into communication with the heads of the courts.

You had nothing to do with that?—There is no approbation of the plan in the Office of Works, they are approved of by higher authority.

You never found yourself called upon to take any measure, in consequence of an architect exceeding an estimate?—Never, beyond reporting the circumstance, when it has been discovered, to the Treasury, and calling upon an architect to explain why his estimate has been exceeded.

You have persons measuring constantly as the work proceeds?—Yes.

As that measurement is given in to you, have you not some knowledge whether the work is going on according to estimate?—That cannot be ascertained from one measurement, but only when the account has been made up from the measurement, and settled according to the prices fixed in the office.

How are the measurers selected, and by whom?—They are selected by the professional part of the office, from young men who are well recommended, and who have been brought up as measurers; they are very difficult persons to get.

Was any estimate given in of the plastering, in the Courts of Law?—It was included in the general estimate.

Was any part of that done by contract?—The whole was done by contract.

Was there any person who had the duty of seeing that no unnecessary expense was incurred?—That was the duty of the architect.

Those ceilings are excessively overcharged with plastering ornament; was that originally contemplated when the building was undertaken; was there any body who had authority to control the architect in the extent to which he went?—I conceive the architect is bound by his estimate; what his plans were I cannot enter into. The plans come to me approved. There are some particular cases of plasterer's work that it is very difficult, in highly ornamented work, to do by previous estimate.

Was not the head plasterer, or the person employed in that building, previously tied down by some contract in your office?—He is tied down to do the work at

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fixed prices, according to the plans given to him by the architect, and the quantities to be ascertained by the measurers of the office.

Do you happen to have any document in your office, which would show, with reference to that work, the estimate and expense of the tradesmen who did it, and the charge for it?—The expense of the plastering can be collected from the office accounts.

You make a contract with each individual tradesman?—Yes, for whatever work that may be in his line of business, and which is paid for according to his agreement.

You say that the Courts of Law were built entirely by contract, but in no case is a contract made for a specific work with any person, but the rate which is to be paid when his work is measured is the subject of the contract?—The tradesmen agree to execute the work at so much a foot or a yard, upon an ascertained measurement and fixed prices.

So that the sum you have to pay him, when he has executed that work, is not the subject of the contract?—No; the amount to be paid depends upon the quantity of work executed.

Are those internal decorations which have been referred to, submitted to the Treasury before the execution of them is determined on?—That is more than I can state; I only know that the plans come to the office approved, before they are executed.

In those plans which come approved, are the designs for the ceilings of the courts, for example, included?—Not that I recollect.

Was the internal arrangement of the new Council Room submitted to the Treasury, or to any other authority, before it was executed?—I cannot say; the only plan I saw was a ground plan, and a model, neither of which showed the ornamental parts, but they showed, I think, the columns; the model showed them more distinctly; and I know that Mr. Soane had repeated communications with the Lord President upon the subject.

Is it usual to consult the officers of the department, as to that which will be convenient for them?—Invariably.

In the case of Westminster Hall, were the Judges consulted?—Every one of them, repeatedly; and I waited upon many of them myself; and Mr. Soane also waited upon them, and had repeated communications with all the Judges, I believe, upon the subject of these courts.

You do not conceive that the Judges were consulted as to the decorations?—I should think not.

Do you conceive Mr. Soane followed his own judgment in the decoration of those courts?—I should think he did.

Did any alterations take place as to the plans of those courts?—Yes; and some took place under the direction of the Committee of the House of Commons.

If an architect consults with the officers of a department for whom the building is intended, do they make any alterations on their own responsibility?—No; such alterations, if of any importance, must be submitted to the Treasury.

When the drawings are sanctioned by the Treasury, do you include the working drawings?—No.

Does any body sanction the working drawings?—Nobody can but the architect.

So that in all the intermediate arrangements, the plans and drawings are left exclusively at the discretion of the architect?—Yes, I conceive they are; but all interior arrangements for a new building, in regard to accommodation, must be settled and approved previously to the plans being completed.

Nothing but the elevation and the accommodation is sanctioned by the Treasury?—Nothing, I believe, but the elevation and the plans showing the accommodation and the general arrangements of the building.

As to the interior decoration of rooms, as to their ceilings, columns, and walls of all descriptions, that is left at the pleasure of the architect?—That I cannot say.

Are not the working drawings those by which fittings are done?—No, not office fittings.

The allusion is made particularly to the decorations of walls and buildings; are they sanctioned by any authority?—Yes, I must consider they are, for the plans come to me approved.

But not the decorations of ceilings or interior walls?—The plans are always approved, I cannot say particularly as to the decorations.

If

If the architect is proceeding with extravagance, where do you consider that the power of controlling his extravagance resides?—I presume he is bound by his estimates.

Were any alterations made in the Courts of Law, at the suggestion of the Judges?—There were, I believe, some; for the arrangements took up a considerable length of time.

After the building was begun, were there any alterations?—Yes.

Was any alteration made by request of the Judges, after the building began?—Yes, I believe some; particularly at the Court of King's Bench.

Was that submitted to the Treasury, before it was carried into execution?—Yes; the Chancellor of the Exchequer was present at the time, and went into the court with the Attorney General, when some few alterations were suggested, and also the addition of a gallery in the Court of King's Bench.

Was that authorized by the Treasury?—Yes; the Chancellor of the Exchequer was by at the time, and sanctioned it.

When the bills come in for the decorations in the interior of the Council Office, for instance, are any questions put as to whose authority caused those embellishments?—No; for the plans are approved previously to their being carried into execution.

You send in the plans to the Treasury, do not you?—Yes.

Do you not know, when you send in plans, the interior decorations?—No, excepting in some instances, where I may have accidentally seen drawings of cornices, and of some similar decorations.

Do you know whether there was any for the new courts?—I cannot say; but that can be very easily ascertained.

The commission upon the decorations is precisely the same as for the original plan?—It is a commission upon the amount of bills as settled, whatever they may be.

What is the amount of the commission?—Three per cent only; which is one of the great advantages the Government derives from the appointment of the attached architects; they have 500*l.* a year salary, three per cent commission they receive only upon new buildings.

Who receives the commission on repairs to any old palaces?—There is no commission charged upon any such works; the attached architects are called upon for a variety of services for their 500*l.* a year.

Is there no commission on the Royal Palaces?—There is not, for repairs or common alterations.

Do the architects do that without charge?—It is not necessary always to call upon the attached architects for their assistance; but upon most of the important alterations and repairs which have been required at the Royal Palaces and public buildings, the architects have been severally employed in designing and superintending the work; and upon most of these they have not been allowed a commission.

What is Mr. Nash's commission on the new Palace at Buckingham Gate?—Five per cent.

Why is the distinction of five per cent for that?—I cannot answer that question.

Is that not in your office?—The accounts of Buckingham Palace are in my office.

Is Mr. Nash a paid architect?—Yes; but his salary ceases during the building of this palace.

On what buildings, if you know, has he ever received his three per cent commission?—He has received his three per cent commission on the building of the Duke of Clarence House in St. James's Palace, and upon the new Stables at Pimlico.

How are repairs executed?—The buildings are distributed under the established clerks of the works, who receive a salary, and under them they have a labourer in trust. Every Thursday those Clerks of the Works attend, with the labourers in trust generally if they can be spared, and they give in this description of estimate. These are one week's estimate for all the buildings [*producing the same.*]

[*The first two Estimates were read, as follow:*]

CIVIL LIST ACCOUNT, March 20th, 1828.

HAMPTON COURT PALACE.

	£.	s.	d.
TO repair the plastering and stucco to the entrance of the housekeeper's apartments, open and clean out the drains, and make good the paving	11	–	–
To repair the plastering and paving to the staircase leading to Mrs. Willis's apartments	6	–	–
To repair the plastering (having fallen down) in the fish office, open and clean out the drains and mend the pipes	7	–	–
To mend the tiling over Mrs. Sheridan's apartments, and some skylights on the roofs of the palace	15	–	–
Open the ground, and mend and exchange the pipe leading from the Gallows Hill conduits	18	–	–
Sundry small repairs in and about the palace	6	–	–
	£.63	–	–

I certify that the above Estimate has been properly calculated, and that the repairs and labour therein stated are all actually necessary, and shall be done at the places and for the purposes as above specified, and at and for no other.

(signed) *Thomas Hardwick.*

Approved, B. C. Stephenson.

CIVIL LIST ACCOUNT, March 13th, 1828.

KEW.

	£.	s.	d.
To repair the iron railing, and put a new bell complete at Sir George Quentin's	4	–	–
Repair the ha! ha! wall at late Hunter's	17	–	–
Continue cleaning out and emptying drains at ditto	5	–	–
	£.26	–	–
Deduct	4	–	–
	22	–	–

I certify that the above Estimate has been properly calculated, and that the repairs and labour therein stated are all actually necessary, and shall be done at the places and for the purposes as above specified, and at and for no other.

(signed) *Thomas Hardwick.*

Approved, B. C. Stephenson.

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Those Estimates are given in by the clerk of the works?—Yes, with his certificate.

What proceeding is there upon that?—I look over these estimates, in the first instance, to see that there are no works required contrary to the Treasury regulations; the Assistant Surveyor General then examines them, and if they appear to be correct, I approve of them, and the work is ordered to be done.

Who judges of the propriety of the charges?—The clerk of the works does as nearly as he can, in his estimate; but the accounts for these works are all carefully examined in the office, and the charges regulated by the fixed office prices.

You said that the accounts of the repair of the new Buckingham House are in your office?—Yes.

Have you an account of the estimate?—No, I have not the estimate.

Have you the accounts of the sum expended in the improvements and alterations in St. James's Park?—No, they do not belong to my department.

By whom were the King's new stables at Pimlico built?—By Mr. Nash.

Did the estimates for those works pass through your office?—Yes, that was a building erected by contract in gross.

Was the actual expense of those stables greater than the estimate?—It exceeded, but there were some alterations during the progress of the building.

Do you remember to what amount?—No, I do not, but I will furnish it.

You have stated that Mr. Nash is now receiving 5 per cent on the expenditure at Buckingham House, in lieu of his 500*l.* a year; has the same rule been ever applied

applied to either of the other architects, in relation to any work in which they are now engaged?—No.

Is Mr. Nash employed upon no other public works, at this moment, but Buckingham House?—I do not recollect that he is at present employed on any other work.

Has that alteration of the commission been made by the authority of the Treasury?—Yes.

How is Mr. Wyatville paid?—Mr. Wyatville is not an attached architect; he is paid his five per cent for Windsor; he has no salary.

Do the accounts for Windsor Castle come into your office?—Yes.

Have you the original estimate?—No.

But you have the accounts?—Yes, I have.

Has an architect who has a salary the power to decline sending in his plan, when called upon?—I apprehend not; I will give a statement of the reasons Mr. Soane gave for not sending in his plan, in respect of Windsor Castle.

Do the architects divide London into particular districts, and undertake any new building which is presented in their respective districts?—Certainly not, unless ordered; the districts was an arrangement thought necessary for the purpose of promoting official regularity, and that it might not be a subject of doubt or dispute to which of the attached architects the office was to apply whenever particular professional advice and assistance were necessary at any of the numerous buildings dispersed over the town and country; this arrangement was not intended to have any reference to new buildings, nor has it been so considered in regard to many public buildings; such of the new churches, for instance, as have been erected by the attached architects, were executed under the immediate control of the Church Commissioners, who selected the architects for such of the buildings as they thought proper; but the plans, &c. of all the churches and chapels built under this commission are previously examined and reported upon, as to the construction, by the attached architects, and for which professional duty they receive no remuneration beyond their salaries.

Who decide on the elevations of those churches?—The Commissioners themselves.

You were understood to say, that, contrary to the usual practice of the architects of the Board of Works, Mr. Soane declined sending in a plan for the alteration in Windsor Castle?—Yes.

In consequence of that it was given to Mr. Wyatville?—I think not.

The consequence of an architect of the Board of Works not being employed at Windsor Castle, has been a loss to the public of two per cent on the sum so expended?—The attached architects receive three per cent commission on any great works, as fixed by the Treasury instructions.

Mr. Wyatville receives five?—Yes.

On the other palace undertaken by Mr. Nash, he also receives five, does he not?—Yes.

Supposing Mr. Nash to have received his salary of 500*l.* a year, and three per cent on Buckingham Palace, would that have been less expensive to the public, than giving him five per cent upon the building?—Yes; that could easily be calculated upon the amount of the bills.

Did it come before you that Mr. Nash had given a reason why he conceived that the building of Buckingham Palace was not to come under his general employment?—I do not recollect any officially.

Do you recollect the sum already expended on Buckingham Palace?—No, I do not.

Do you not think that a fixed salary would be a better thing than paying an architect a per-centage on the expenditure?—I do not know how that can be fixed.

In point of fact, is it not the case that the architects are only consulted upon that part of the town that is devoted to them; for instance in the Courts of Law, did any body send in plans, or was any body consulted but Mr. Soane?—No, not at the Courts of Law.

No one architect interferes with the other, in his district?—Not unless specially ordered.

When would the Treasury or Board of Works think of consulting the other architects in whose district this was not?—The Treasury would, I conceive, consult upon such occasions with the architect who designed the plan for the building;

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building; I do not recollect an instance where the attached architects have been consulted upon each other's plans.

You conceive the salary is of course for all that?—The salaries are to cover all the services stated in the Treasury instructions; and, I think, a very advantageous arrangement for the public.

Is there often a competition between the three Government architects, in respect of the plans of public buildings?—Never, to my knowledge, except in the case of Windsor Castle.

Would it not be an useful regulation, that upon the undertaking any considerable new building, plans should be delivered in, or general ideas of the elevation be delivered in, by each of the architects?—I cannot say; plans might be required in the same way as was done for Windsor Castle.

In your opinion, would not the public be more likely to have handsome buildings erected, if there was a choice presented to the Lords of the Treasury, or the Surveyor General, of three plans, instead of their being confined to one?—It might; but I recollect the plans that were delivered in for the Post-office were not one of them approved; and I have generally found great reluctance, amongst architects who stand high in their profession, to offer their plans to competition.

Would it not have been better that each of the three attached architects should have delivered in a general notion of what the elevation should be, of a building on so large a scale as that?—I fear this would be found impracticable.

Would it not be a desirable thing, in your opinion, when any great building is undertaken, that a premium should be given for the best elevation?—I would certainly not recommend offering a premium for the elevation of a building, without a general plan of the whole.

As the beauty of the town is in question, would it not be desirable that there should be a premium for good plans and elevations?—I think premiums for the plans of large buildings have generally failed in producing any real advantage to the public.

Might not an architect, well qualified, improve upon that?—I conceive he might.

You say you send in the elevations and plans to the Treasury; does it frequently happen that the Treasury make alterations in the elevation?—I think that has occurred.

Is it of rare occurrence?—I cannot say.

Do you remember, with regard to the new Courts of Justice, whether the Treasury approved of the original front of those courts looking northward into Palace Yard?—I cannot give a positive answer to that question.

With regard to the National Debt Office in the Old Jewry, when was that built?—I do not know.

Are you aware whether that was approved of by the Treasury?—I cannot say; that office has been but lately put under my department for the purpose of general repairs.

Was it not built originally under the direction of the Board of Works?—No, it was not.

The present Privy Council and Board of Trade only form part of the plan which has been determined; it is intended, is it not, to pull down the office of the Home department?—It was intended to have a Pavilion to the North, to correspond with that to the South.

It is proposed to throw a triumphal arch across Downing-street?—Not that I know.

Has there ever been a plan countenanced for making a building similar to the present Board of Trade and Council Office, on the other side of Downing-street?—Nothing, I believe, excepting some drawings may have been made, but no orders from the Treasury for any such building.

The line of the present building, if carried on, would block up the end of Downing-street, unless the other side were taken down?—There was, I believe, an intention of taking down the opposite side of Downing-street; but I never heard that any such plan had been authorized by the Treasury.

The present Council Office does not take the same line as the other side of the street does?—No, it does not.

Does not that show there was a change contemplated in the line of Downing-street?—I never heard of that officially.

Do you conceive Mr. Soane took that line, without being authorized?—I cannot say.

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The line of Whitehall is not the line of the original building?—No.

If the Lords of the Treasury and the Board of Works permitted Mr. Soane to take this line in Downing-street, does not it appear that he must have had some further plan for altering the street?—That I cannot state, Mr. Soane can answer that best; but I believe it was at one time in contemplation to provide an office for the Exchequer, and a State Paper office.

Do you recollect any estimate being made, before the works at the Foreign Secretary's office were undertaken?—Yes.

Do you recollect what that estimate was?—No, I cannot; but I can furnish that.

The expense was 42,000*l.*; do you remember how near that came to the estimate?—I cannot say; but that was not for the buildings.

How are the payments made to the architects, do you pay in advance, or upon work done?—No payments are made to the architects, excepting their commission; the tradesmen are paid upon their accounts, as settled in the office; these accounts are made up quarterly.

Then you pay that bill?—Yes.

Every quarter?—No, but as soon as the accounts can be examined.

There is no deduction or discount?—None whatever.

It being understood that the money will be paid quarterly?—No, but as soon as possible after the accounts are examined.

But the practice is, that they get paid quarterly?—No; the practice is, that the tradesmen generally receive two payments in a year.

Have your office any thing to do with the expenses that were paid on the work executed in Downing-street?—With the alterations, not with the acquisition of Sir Robert Preston's house.

Which of the three architects made those alterations?—Mr. Soane made those alterations.

John Soane, Esq. one of the Architects of His Majesty's Office of Works and Public Buildings, called in; and Examined.

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ARE you carrying on any public works now in this part of the town?—There is a little doing at the House of Lords, and something at the House of Commons, merely fitting up a room.

Is any thing about to be done to complete the Council Office and Board of Trade Office?—Nothing, that I know of.

Did many alterations take place in that building for the Council Office, after the first plan and model were delivered in to the Treasury?—A great many.

Were those alterations in consequence of your suggestions, or from what cause did they arise?—I do not remember suggesting any.

From whom did the alterations proceed?—Sometimes from the Chancellor of the Exchequer, generally I should say from Mr. Robinson, now Lord Goderich; I attended several times at Lord Liverpool's, when Mr. Robinson was present, and then alterations were made, particularly in the exterior.

Have you preserved the different plans?—A great many of them, I have generally; sometimes they were rubbed out, in order to substitute the alterations; the original intention was to build only for the Board of Trade, it was to commence at the Treasury passage and to continue towards Downing-street, with an idea that it would only be continued to Downing-street, with a building to contain the Council Office.

How nearly does the present building correspond with the model which was made?—It differs materially from the model, and still more so from the original design, the model not having been made till after many drawings had been prepared and submitted for the inspection of the Chancellor of the Exchequer, and altered agreeably to his suggestions. In the original designs, the columns were insulated; these were objected to by the Chancellor of the Exchequer, and he proposed to substitute three-quarter columns, and the model was made to enable him to satisfy himself as to the effect of them; the model was approved; but subsequently it was determined that there should be a projecting pavilion at the angle of the building next Downing-street, with columns projecting into that street and likewise into Whitehall.

Was the alteration made in the columns, from insulated columns to three-quarter columns, with your approbation?—Certainly not, decidedly against it.

In any of your plans was the building, or were the columns intended to be considerably

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siderably higher than they are at present?—Not the columns; other parts of the building were higher in some of the designs; the Order originally selected by me was taken from the Temple at Tivoli; my object was to have it a fac-simile, not only in proportion, but in the exact dimensions both as to the columns and entablature.

In what respects do they now deviate from that?—The whole of it is entirely changed; instead of that Order, which is the lightest and least decorated example we have of the Corinthian order, it is changed for the order of three columns in the Campo Vaccino, the most massive and richly ornamented of all the remains of antiquity.

By whose direction was it changed?—By that of my Lord Goderich, when Chancellor of the Exchequer, expressly.

You received your instructions from Lord Goderich personally?—Very often; after receiving such instructions, the plans were made out and submitted, and subsequently I received directions to carry them into execution, with such alterations as were directed to be made.

Was your original plan sanctioned by the Treasury?—Yes, every part of it.

How long subsequently did you receive orders to vary your plan?—The building, I think, was four or five feet out of the ground when the first alteration took place.

What was that alteration?—The changing the columns from insulated columns to three-quarter columns; and subsequently (that was sometime afterwards) the Order itself was changed.

In what state was the building when the Order was changed?—I think some of the bases of the columns were set, and a great part of the stone-work for the shafts of the columns was prepared, but not set.

Is it your opinion that the effect of the building has been injured by the alteration?—That is a matter of taste.

What is your own opinion?—Yes, I should say, materially injured.

Did the alterations occasion considerable expense?—Certainly; the adoption of that massive Order, so fully enriched, has occasioned considerable expense.

Had you to pull down much, to make the alteration?—No; I have already said it was not far out of the ground, no considerable portion was pulled down; but much of the stone-work, which had been prepared, was rendered of little use by the alteration.

The present line of your building in Downing-street does not follow the old line of the street?—It does not.

With what view was that line made by you?—The line of the building in Downing-street is necessarily at right angles with the front to Whitehall; the direction of which was altered from what was originally proposed by me.

By whom?—By some of the Lords of the Treasury.

Where would your line have gone; would it have gone further into the street or further back, or would it have kept the old line of the street?—By the original line the width of Downing-street is considerably increased, I cannot explain that fully without the plan. The front of the Board of Trade, if continued according to my original line, would have cut into King-street several feet; this was objected to, and I was directed to alter the line of the front of the Board of Trade, so that if continued, it would cut about five feet on the house the corner of King-street and Downing-street. I set back about five feet from Whitehall upon the Office of the Secretary of State for the Home Department; my object was, that if it should be considered desirable to make the Secretary of State's Office a part of the grand design, I should do nothing to prevent that idea being carried into execution; no such idea had ever been stated to me at that time, but it occurred to me that it might; I took no notice of the width of the Treasury passage, that I might be enabled to adapt it in any way I wished. After this line had been so determined, and the Office for the Board of Trade had been erected, it was then said, We must have a pavilion, of, I think, six columns, and at the angle of Downing-street must have another pavilion; making the front of the Secretary of State's Office to correspond with it.

You stated that your building is at right angles, but the effect in Downing-street is, to leave the two sides of Downing-street not parallel the one to the other?—Certainly.

It was not your intention to leave it so?—No, certainly not.

What were your ulterior determinations respecting Downing-street?—I am prepared with plans to explain that.

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Were any of those, plans that have been approved of by the Treasury?—No, they have been before the Treasury, but nothing settled upon.

All which has been built, is all that is approved of by the Treasury?—Yes.

Did you state to the Treasury, that by this line you had taken, it would not be parallel with the other side of Downing-street, if they went no further than the plan they had sanctioned?—Downing-street was considered as a secondary object; they are miserable old houses that must come down; the object was, that the whole might open a way from this building to Westminster Abbey,

Was that an understanding by the Treasury, or your own design?—My own design brought forward.

Do you accompany the plans with estimates?—Yes.

What was proposed to be done, after turning the corner of Downing-street?—All has been done, that was agreed to.

Was it not intended to carry that line of building further into Downing-street; it comes out at present further than the old line of building?—I had prepared a plan, but no plan was approved further than what has been executed in Downing-street; but as respects the front towards Whitehall, it was settled by the Treasury that there were to be two pavilions. I was asked, Supposing you had power given you now to commence that building in front of the Secretary of the Home Department Office, could you complete it this year; I replied, I think, if I had instructions immediately, I could; but I have heard no more of it. I was perfectly satisfied in my own mind, that a line of this sort being continued in the front of the Secretary of State's for the Home Department would make a very awkward figure; it makes a kind of gusset; it would compel the pulling down the whole of the Office of the Secretary of State for the Home Department, which I wished to avoid.

If the second pavilion should be built next to my Lord Melbourne's house, would not the projection into the street form a very awkward angle?—I think it would be impracticable; as an artist, I should decidedly say, that it could not be done. If I have the honour of explaining my plans to the Committee, it will be seen that I had a very different idea, so as to make it one entire plan, which it would do in conformity to the plan I had in contemplation; the Office of the Secretary of State for the Home Department would not form a part of this plan.

Do you recollect an alteration made in the roof to the building, by putting a balustrade upon it, which was afterwards removed?—Perfectly.

Was that done by your wish, or by any direction from the Treasury?—Not by my wish, neither the putting on nor the taking off.

Do you recollect the alterations and new works that were carried on in Downing-street for the accommodation of the Secretary for Foreign Affairs?—I had the direction of them.

Was an estimate of that work presented to the Treasury, before the work was undertaken?—The work was altered, and added to, from time to time; I believe there were estimates; I know there were some, but whether for all I cannot charge my memory.

Do you not send in estimates for all works you do under the Government?—For all works, unless for trifling works done on the spur of the moment.

This particular work was done under your direction?—Yes; it was a large work, and a very troublesome work.

Have you kept tolerably near to your estimates?—If, in the first instance, what is required to be done is clearly defined, I can keep to the estimate; but if there are frequent alterations made in the plan during the progress of the works, it is impossible.

Do you in those estimates you give in, include the fittings-up and the ornamental parts?—In some cases, where I can ascertain them with any thing like certainty.

You include the wainscots and fireplaces, and those kind of things?—Yes, the fireplaces are part of the building.

And the ornamental stucco work?—Yes; and likewise the linings of closets and recesses.

Do the Treasury, as far as your experience goes, often make alterations in the internal decorations of buildings submitted to them?—Not often, I think.

Can you form an estimate as easily in case you have an old building to pull down, as if you had a new building to erect upon a site where no building was before?—Certainly not, unless I am allowed to take up floors and see the state of

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the timbers, and ascertain the condition in which the roof and other parts of the building are.

After you had made that examination, you would then be able to give an estimate of what the expense would be?—Very near it.

Would that be the case where there would be much of what you call day work?—Yes, to a certain extent it may be done.

Was the original plan for the Courts of Westminster Hall, subsequently altered by the Committee of this House, approved by the Treasury?—Yes, certainly.

Was it approved without any external alterations being made?—The direction from the Treasury to me was, to see the different Judges; their lordships the Judges suggested a variety of alterations.

Were any of those with reference to the external façade?—No.

Did the Treasury suggest any alterations in the external façade towards Palace Yard?—None whatever.

Can you say within what time that large wooden shed in Westminster Hall, containing the records of the courts, is likely to be removed?—I do not know; I have no directions.

Are you building any place to receive those records?—I have plans prepared for it.

Is there any site particularly appropriated to it?—No, there is no plan settled.

Is the National Debt Office in the Old Jewry the property of the Crown?—No, it was built by the Bank. The Government are tenants of it.

Martis, 1° *die Aprilis*, 1828.

John Soane, Esquire, called in; and further Examined.

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WILL you give a statement of the origin of the new Buildings at Whitehall, and the alterations which have occurred in the plan?—On receiving directions from Lord Liverpool and Mr. Robinson to make plans for a new Office for the Board of Trade, keeping in view that the Board of Trade was to be only a part of a larger building, namely, the Privy Council Office, that it might make one mass of building, the situation of which was determined to be from the Treasury passage towards Downing-street, I had correct plans made of the old Council Office of the Secretary of State's Office for the Home department, and of the Treasury Chambers, in order that no part of my plan should interfere with any general plan. Here is that Plan [*producing it.*] I set out by supposing my new line for the front of the Board of Trade to recede five feet from the front of the Office of the Secretary of State for the Home department, and continued in a parallel line with that building; on continuing the line to King-street, I found it cut into that street several feet; I then made a design for the Office of the Board of Trade, having previously applied to Mr. Huskisson, and to Mr. Lack the chief clerk, to learn what rooms would be necessary for the accommodation of the office, of what dimensions they should be, and how they should be connected together; having obtained these data, I completed my plans. Lord Liverpool's instructions were, to make a plain building; I accordingly made the design which is now before the Committee. The Board of Trade was to extend from the Treasury passage to the old Privy Council Office; this was the first Plan made [*producing it.*] The Board room is placed in the front; and it was suggested to me, I think by Lord Harrowby, that it was a very inconvenient thing to have a Board room in the front towards the street; I mentioned that to Mr. Huskisson, and he directed that of the Board of Trade to be put in the back of the building. This [*producing it*] is the Elevation; this plan, with this elevation, was submitted to Lord Liverpool and Mr. Robinson, and I think Mr. Herries also was present; it is considerably higher than the building now erected. This design being approved, an estimate was made, amounting to about 16,000*l.*

Do you mean that it was strictly approved?—Lord Liverpool and Mr. Robinson expressed their approbation of it; I had no orders to carry it into effect.

Was the front intended to be of brick, or stone?—Of brick, with stone ornaments.

Was the 16,000*l.* to include the interior arrangements?—It was to include the whole of the building for the Board of Trade. After a lapse of a few weeks I was directed to consider how additional apartments might be made for the Commissariat Office, that it might be removed entirely out of the Treasury; this Plan was accordingly

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accordingly made [*producing the same*]; that I have called N° 1. A.; this, N° 2. A. is another Plan for the same purpose; N° 1. B. is another, and N° 2. B. is another. In all these plans the same line of front is preserved, cutting several feet into King-street.

What additional expense did that Comissariat part occasion?—There was never an estimate made of that building, the plan not having been sanctioned. On being directed to attend at the Treasury with the plans for the Board of Trade shown to Lord Liverpool and Mr. Robinson some few weeks before, this design was considered too plain, and I was directed to prepare a design more decorated; I made a Plan accordingly with insulated columns continued along the whole front, which was presented to the Treasury [*producing it.*] This was the first design with columns, which were of the Order of the little Temple at Tivoli; this Order was afterwards changed for that of the three columns in the Campo Vaccino with all its enrichments.

Who directed that?—The Treasury. The insulated columns were afterwards changed for three-quarter columns. This Drawing [*producing it*] was then made, which was the drawing approved on the 15th of June 1824.

The orders up to this period were only for the Board of Trade?—Just so; but the moment that was approved, it determined the appearance of the Council Office. On the 11th of June this plan, the centre of which receded, leaving a part of the columns insulated, was again examined by Mr. Herries and the Chancellor of the Exchequer; Mr. Herries for some time preferred the insulated columns, and fortified his opinion by referring to the effect of the columns in the Chancellor of the Exchequer's room; the Chancellor of the Exchequer disapproved of the insulated columns, however, and wished to have three-quarter columns through the centre front, to which ultimately Mr. Herries acceded. On the 12th of June I had again the honour to attend the Chancellor of the Exchequer with the drawings, when Mr. Robinson expressed himself less satisfied with the three-quarter columns; but although a very large drawing of the front was produced, the Chancellor did not think he could determine satisfactorily without a model of the whole front, which I was directed to have made, and in the meantime to proceed with the works. This is the Plan as it would have been [*producing it;*] this is the design which I wished for.

That includes the two?—Yes, and the reason for showing both in the elevation, was, that the effect of the whole might be seen at once. If it is asked, Why I did not include in this design the front of the Secretary of State's Office; the answer is, Because it was impossible to connect it properly with the new building, without altering the levels of the floors and the height of the windows, and involving indeed a rebuilding of it.

Were the three-quarter columns less expensive than the others?—I think they would be somewhat.

Was there any reason assigned as to the three-quarter columns giving more light?—No; it was admitted that insulated columns were more beautiful, but it was asserted that unless there was sufficient space to pass behind them, they were an improper adjunct.

Do you ever work with models?—I always do, it is a great saving of time. I was now directed to have a model made of the front with three-quarter columns; which was accordingly made, and sent to the Treasury, where it remained some time.

It was determined by the Treasury that the whole line should be one line of continuous columns?—Yes.

Was it your original design that the building should be higher than it is at present?—Yes.

Then you consider that the present building is not sufficiently high for the situation which it occupies?—Utility being consulted, the building is as high as it ought to be.

The question refers to taste?—If taste only is considered, I should have liked it much higher; but the elevation must make a part of the plan, and the plan is the first thing to be considered.

When you speak of your first plan as being higher, you mean the original plan, which was altogether different from this?—Yes; the original design was considerably higher than that executed, as was likewise the centre of the design with the receding portico.

Was not the first plan of this line of building of the same height?—That was the same height.

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Then you do not consider that this building, in the state in which it is, is too low for beauty?—I hardly know how to answer that question; the larger and the more simple the parts, the finer the effect.

Do you consider, with reference to the situation, the buildings near it, and the space before it, that this building, of the Council Office and the Board of Trade, would have had a better effect if it had been considerably higher?—That is matter of taste; if I had been building an exterior only, without any regard to the internal convenience and accommodation, and had considered myself unlimited in expense, I should certainly have made the building much higher; that is to say, instead of having a column of three or four and twenty feet high, I should have had larger columns.

Do you conceive that making the building somewhat higher, would have diminished the internal convenience?—There would have been so much lost space; the rooms are now of very sufficient height, and it might have been asked, Why is all this expense incurred in making the rooms unnecessarily high.

Might you not have put another story?—It was not required, the site offered sufficient space without it.

Is the object of this merely to give altitude to the building, or is there any internal accommodation in it?—Yes, there is a great corridor all the way along.

Then this was placed in order to give it altitude?—Certainly, and not only to give it altitude, but likewise internal convenience.

Was it ever suggested that a more simple building, made higher, would have had a better effect?—That was my suggestion at first.

Were you told that that first building, which you produced, and which was considerably higher than this, contained more than was wanted by the offices, and that therefore you should make your next plan lower?—From the information I had obtained, I found that the upper story was useless, and I lowered my design accordingly. With respect to the change of the line, this was the first plan that was shown to my Lord Harrowby.

When was the change of line made?—The line had been changed before the building was begun.

When were you last given to understand that you were to have any thing to do with the other side of the Treasury passage, because you have stated that you had previously considered the Treasury passage as the boundary?—It appears from a memorandum on this plan, that it was in June 1826.

That was long after the other part was built?—Yes.

When was the line changed?—Before the new Board of Trade was commenced, the line of front was changed from my original line, which cut into King-street several feet, as I have before stated.

What were the reasons suggested for that change of line?—Lord Harrowby observed to Mr. Robinson, that the line would cut upon King-street, and take half the street, adding, that it ought not to be so, but instead of that, should cut as much on the house at the corner of Downing-street, which would afford an opportunity of widening King-street; and I was directed to alter the plan accordingly.

Then the reason given for throwing back the line, was in order to keep the line of King-street?—That might have been the intention.

When it was stated to you subsequently, that the Home Office was to form part of the plan, did you state to the authorities the objection there would be to the line you were then obliged to adopt?—I did not; but I produced plans to explain what I conceived the impossibility of disturbing the building forming the Office of the Secretary of State for the Home department.

Did those drawings show how much it would project beyond the line of Melbourne House?—They did; when I was directed to make a pavilion in front of the Office for the Secretary of State for the Home Department, to correspond with the pavilion at the corner of Downing-street, I then produced those drawings; I produced those drawings to Mr. Robinson, to show what the effect would be.

According to this plan of yours, how many feet would that pavilion have come out into the street, beyond the line of the front of Melbourne House?—I think about twelve feet.

Was it stated to the Treasury at the time, that it would project twelve feet into the street?—This drawing was produced, which shows the projection.

Had you previously stated to the Treasury, the effect of that line?—I made drawings to show the effect; when I was told to make a pavilion corresponding with

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with that next Downing-street, I made designs accordingly, which showed the irregular projection on the footway.

And you did not object to it upon that ground?—I did not object to it, but, besides the drawings just mentioned, I made a plan to show it.

Did you state verbally to the Treasury, that it would extend twelve feet?—I produced the drawings.

Was there any discussion, or any conversation upon the subject?—There was a great deal said upon the subject; I observed, that perhaps the effect might not be displeasing, but, as far as convenience was concerned, every one must condemn it.

Was not that plan, particularly with respect to the mode in which you proposed to finish it at the end which abuts upon Melbourne House, framed after the discovery had been made that the line when produced would project so much on the pavement, and that something would be required to remedy the unsightly appearance of that projection?—I always knew it must project; it was impossible to look at the plan without seeing it must be so.

In the original plan, and at the time when it was proposed that the line should be thrown back, with reference to the line of buildings in King-street, was it then determined upon by the Treasury to carry the building further than the Treasury passage?—Certainly not.

Then the evil which is now adverted to arose entirely from the subsequently determined production of the building towards the Secretary of State's Office?—Certainly. When the model was made, forming one unbroken line, the whole extent of the Board of Trade and the Privy Council Office, it was observed, that it would produce a monotonous effect. I did not think so; great unbroken lines occur in all the best examples of antiquity, and many of the most celebrated works in Italy have the same character, such as the Stoppani Palace by Raphael, the little Farnese Palace, and many others. In order to take off from what was considered the monotonous effect of the unbroken line of entablature shown in the model, I was directed to make a projecting Pavilion next Downing-street; and subsequently I was directed to make a design to continue a similar portico in the front of the Office of the Secretary of State for the Home department.

When so directed to continue the front, did you object to it, that it would necessarily bring the end of the building greatly in front of the line of buildings at Melbourne House?—I did not, but I made drawings immediately, showing it, because it seemed a measure very much wished for, and I was therefore anxious to show the effect upon paper; I thought that was the best answer I could give upon it.

When the production of the line was sketched in a drawing, was that circumstance then the subject of conversation?—There was a great deal of conversation, and then I made the observations I have just mentioned.

Was your purpose in desiring to put it upon paper, in order to exemplify more strongly the error of the line?—Certainly.

Was it for the purpose of dissuading the Treasury from the adoption of it?—Certainly; it was for the purpose of showing the effect of the line, which I thought would be better done by a drawing than by any language; and to impress more fully my idea, that no alteration should be made in the front of the Home Office.

Do you remember that at Fife House it was at one time a subject of discussion, whether the line would so advance and how much; that there were various opinions about it, and that, in consequence of that difference of opinion, one of the individuals present undertook to make a measurement and to ascertain it, his opinion being that the advance would be much greater than other persons then in the room supposed?—I remember that conversation taking place, but the fact itself was not new to me from the first moment I was desired to make that drawing; I have already stated, that I knew what the effect would be, but I made no observation on it till the drawings were made; I then stated all the difficulties that would arise from the adoption of that idea.

There were, then, various considerable alterations made in the plan of this building of the Council Office and the Board of Trade at different times, from the time of the original plan till it was executed, and by different individuals?—Yes, several, particularly by Lord Harrowby. When the drawings of the Council Office were first shown to his Lordship, he suggested the propriety of changing

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the relative positions of the committee room and the Lord President's room; his Lordship also desired to have an anti room immediately adjoining the Privy Council Chamber. These and other alterations were made and submitted accordingly, and ultimately approved, and directed to be carried into effect.

Did any discussion take place as to the line that the building was to take in Downing-street?—None; the line of the front next Whitehall determined the line of the building in Downing-street. Referring to a former explanation respecting this line, I have stated, that when I produced the plan that showed the building extending on the footpath, I made many objections, and one of the chief objections was, that it would create a necessity, not for altering merely, but virtually for the pulling down and rebuilding of all the front part of the Office of the Secretary of State for the Home Department, and when so done it would have caused great irregularity in the shape of the front rooms of that building.

Was there any earnest desire expressed on the part of the Treasury to continue that line, and build a new Secretary of State's Office?—It was considered desirable to continue that line, but nothing was said as to building a new Office for the Secretary of State.

Was it not rather a suggestion for the completion of that plan?—The object could only have been to make the front next Whitehall regular.

Must not the suggestion of the rebuilding or alteration of the Home Office have come from the Treasury?—Certainly.

Did not the continuation of the buildings in the direction of the Secretary of State's Office arise out of the necessity of giving it uniformity with the other part of the plan?—It was from having that portico at the end next Downing-street, which suggested to the Treasury the necessity for a similar portico in front of the Home Office. I was of a contrary opinion, for, in fact, I had not contemplated the connecting the Office for the Home Department with the new building for the Board of Trade and Council Office.

Why was the plan altered towards the corner of Downing-street, when that portico was added?—Because it was thought that a plain unbroken front would be monotonous.

Who thought so?—The Treasury thought so.

Did you state to the Treasury, that by the alteration of the line proposed, it would occasion an alteration of the line of Downing-street?—No, I saw no objection to the alteration of the line.

Do you not consider that it was your duty, as architect, to state to the Authorities all the objections that you saw to a departure from the original plan?—I did not see any objection to the pavilion being placed as directed, next Downing-street, knowing that the regularity of the design could be preserved by continuing the building into King-street, in a corresponding direction southward to the same extent, which would afford sufficient space for the State Paper Office, and for an official residence for the Secretary of State for the Home Department; thus leaving the present Office for the Home Department applicable for the purposes of the Treasury, without any alteration of the front, as is obvious by an inspection of this plan.

Did you intend in your original plan that that should remain as it now is?—I saw no objection, as to symmetry, to its remaining as it is.

Did you state to the Treasury the objection to taking that line in Downing-street, and that you would be compelled to take such line if you varied the line in front of Whitehall?—The new building unavoidably takes a different line from the old line of Downing-street, but leaves that street considerably wider than it was.

If your building be produced in a straight line, will it not cut the door of the Colonial Office?—Very likely.

Did you state to the Treasury all the objections to varying the line in the first instance, and the consequences that it would have in taking the present direction in Downing-street?—I certainly did not, because I saw no objection then, nor do I see any objection now, to the line in Downing-street.

Did you consider that the Secretary of State's Office was to remain as it now is, that the building was to terminate in Downing-street as it now does, and that it was to be exactly as it is now, and that there was to be no alteration?—Exactly; nor do I propose any now.

Did you state to the Treasury that that might have an unsightly appearance?—I could not state that which I do not believe to exist; I do not think it will; I think, so far from it, it will be very handsome.

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Do you consider it at present a complete design?—I think that what is done is part of a complete design.

Do you consider it a complete design, in contemplating an addition to be made; or do you consider it as a complete building now?—At the very moment when I was directed to add a pavilion next Downing-street, I contemplated the plan which I have now before me [*producing a plan.*]

Will you explain what that plan is?—This plan is in effect to carry on the line of the buildings to Westminster Abbey, making Downing-street eighty-five feet wide at the entrance.

Did you state to the Treasury, that in order to give due effect to your building, it would be necessary to make this alteration of Downing-street?—No, I could not do it; my plans were not then prepared, those plans required much consideration.

After you had matured those plans, did you state that this alteration of the line of the building would make it necessary to pull down the houses on the other side of Downing-street, to make that street eighty-five feet wide at the entrance, and to carry on the plan you have now mentioned?—Those plans have never been directly before the Treasury.

Did you lay that whole plan before the Treasury, and explain the further objects you had in view in the partial plan which you have carried into effect?—Undoubtedly; particularly one in which the Triumphal Arch was introduced; it was introduced in different parts, and Mr. Robinson was so pleased with it, that I had all but directions to carry it into execution.

Then in that plan you did contemplate that this was not to be left in its present state, but that, in order to carry into effect that whole plan, Downing-street was to be altered, the buildings on the opposite side were to be pulled down, and triumphal arches erected in different parts of Downing-street?—Most undoubtedly; and I believe it will be found by consulting the Acts of Parliament, that you have an Act to pull down that side of the street. If I had not contemplated this sort of plan, which gives an originality and variety of effect to this line, I should have urged many objections to this Portico.

Would you not still more have objected to leaving that unsightly corner in Downing-street, which seems to answer no purpose at present, supposing you had not had that further plan?—According to my design produced, the buildings on both sides of Downing-street are similar.

Will not the present line produced, cut the door of the Colonial Office?—It will.

Supposing the line of the front of the new building had been as it was originally proposed, and had come considerably in front of King-street, would not the inconvenience now complained of with respect to the direction given to the line in Downing-street, have been much greater?—If the building is supposed to be of its present extent, it undoubtedly would; but my design at that time was less by forty feet, and consequently the continuation of the line of building in Downing-street would have cut considerably less on the Colonial Office than at present.

Wherever it terminated, would not the line of building square with it have been at still greater variance with the line of Downing-street than the line in question?—Most undoubtedly.

Were those considerations relating to the line which the building would have in Downing-street, brought fully before the attention of the Treasury at the time they determined upon the plans?—Various plans were made for the purpose and submitted.

You have stated, that you gave a great variety of plans; did you also give a variety of estimates?—Certainly not; it would have taken too much time to have made those estimates.

Did you ever make any estimates?—Several.

Did your last estimate include the change in front of the Home Office, and in the termination at Downing-street?—No, it did not.

Then no estimate has ever been given to the Treasury, of the expense of continuing the building in front of the Secretary of State's Office?—Certainly not.

What was the last estimate that was given?—It was about fourteen or fifteen thousand pounds; but I cannot charge my memory with the exact sum.

You stated, that the estimate for the first change of the Board of Trade building was as much as 16,000*l.*?—The estimate of 16,000*l.* was for the first design, which was subsequently totally done away with; the next estimate was about 61,000*l.*; and there was a supplementary estimate of about 14,000*l.*

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Of what stone is that building built?—Of Portland stone.

Is not Portland stone much dearer than other stone?—It is somewhat dearer than Bath stone, but it is far more durable.

Was the difference between that and other species of stone ever mentioned to the Treasury, when the estimate was taken into consideration?—No; I should have thought it would have been bad economy to have used Bath stone.

Is Bath stone a peeling stone, where it is laid in a right way?—I do not think it is; the great error is in not laying the stone in the building according to its natural bed.

Is the Purbeck stone of durability?—I should think it is.

What is the difference of price between the Purbeck and the Portland stone?—I cannot state that.

Will you have the goodness to state who was the person from whom you received directions to terminate the Privy Council Office with a Pavilion?—To the best of my recollection it was Mr. Robinson; but there were other gentlemen always present.

As soon as it was decided that the Privy Council Office should terminate with a Pavilion, was it not a matter of absolute necessity, with reference to the completion of the façade, that a corresponding Pavilion should be erected at the other end, where the Home Office and the Treasury now are?—Certainly not; if the question had been, whether any more building was consequent upon that, I should have said, certainly, but not at the Secretary of State's end. I have already shown an early plan, explaining how the symmetry might be preserved, by extending the building towards Westminster Abbey.

Till the Treasury had some knowledge of this further plan you had in contemplation, must it not have been obvious to every body that the Pavilion made at the end of the Privy Council Office would require a corresponding one where the Treasury now stands, with a view to the completion of the façade you were making?—It might be so, but I have always been of a different opinion.

When Mr. Robinson gave you directions to make a Pavilion at the corner of Downing-street, did you not then state, that, for the sake of uniformity in the building, another Pavilion would be necessary?—No.

Was there any occasion on which you were desired to form a design for a single Pavilion?—Yes; there was nothing said about the other Pavilion till after the present Pavilion was nearly completed.

Supposing it had been impossible for you to continue that line in the direction of Westminster Abbey, would it not then have been necessary to make a corresponding Pavilion where the Treasury and the Home Office are now situated?—If a similar Pavilion is made, it must take another direction, parallel with the front of the Home Office.

You have formed a plan for a line of building which is to commence on the King-street side of Downing-street; does not that plan contemplate the taking down of the buildings in Parliament-street?—Not one.

Do you get a good view of the new buildings without it?—Yes, I take another angle.

Would it not have been a narrow street?—No, according to my plan it would have been a wide street.

With regard to those meetings upon the subject, which you adverted to at Fife House, did not the plan then under consideration contain two Pavilions?—The latter ones did. I was directed to make a design with two Pavilions. I never meant to pull down any houses in Parliament-street, because they are valuable property; those in King-street are, generally, miserable ones; and in making part of a great plan, they would be pulled down, and then the houses in Parliament-street would have an additional space added to them, which would make them so much the more valuable.

Where would the line terminate, which you projected upon the King-street side of Downing-street?—It might be continued in a straight line to the Abbey, or take a different angle after passing the proposed new State Paper Office.

Would not it fall considerably behind the Abbey?—It would be carried on to the Abbey, to the North door.

Does not the line you propose, deviate considerably from the line of King-street?—Certainly very much, and the angle it takes depends upon the width of the street.

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Are you satisfied with the manner in which the Council Office terminates against the Office of the Home Secretary of State, with reference to its appearance?—No.

What would you propose to do on that side towards Melbourn House, provided this large plan on the King-street side of Downing-street should not be intended to be carried into execution?—I should leave the front of the Board of Trade to terminate where it does, and erect a corresponding pavilion in front of the Home Office, parallel thereto; but if extreme symmetry is considered indispensable, I should then first add two more intercolumniations to that front, which would however make a material alteration in the internal arrangement of the Home Office, and then add the corresponding pavilion parallel to the present front of the Home Office, but in no case change the line of that front.

You must either have a projection or an angle, and you think an angle is the least awkward of the two?—Yes.

Did you receive any authority from any public body for the interior decorations of the Board of Trade and Council Office?—No.

Were any designs for the interior decoration of the Council Office submitted to any public authority?—The plan of the ceiling was shown.

Do you mean the dotted plan?—Yes.

Was there any general drawing of the interior of the Council Office submitted to any public authority?—No, I should think not.

Is it not customary, in building houses for private individuals, to consult them as to their wishes in fitting up the interior of their houses?—The architect, I presume, always consults the employer as to the internal arrangement and external character of the building, leaving the internal decoration to the taste of the architect.

You do not consider it your duty to submit any drawings of the interior decoration of public buildings to any public Authority?—I have never been called upon to do so, nor do I think it necessary.

Have you had any approbation signified to you, of the manner in which you have fitted up the Council Office?—No, quite the reverse: various alterations have been proposed, to improve the taste and render the proportion of the new Privy Council Chamber more pleasing to the eye, and some alterations have lately been made, not under my direction; they are however nothing more than the reinstatement of certain parts which had been previously altered from the original construction.

Have you given any estimate of the expense of the interior of the Council Office to any public Authority?—Yes.

To whom did you give the estimate of that expense?—It was included in the general estimate presented to the Treasury.

Were any explanations entered into with the Treasury, with respect to that expense?—I was not called upon for any.

Considering that economy was to be a consideration in those public buildings, was it ever suggested to them, that they could have made a more simple interior than was afterwards made in the Council Office?—I mean to say that the Council Office and the Board of Trade could not be made in a less expensive manner, consistently with the character of Public Offices; but if the question refers to the finishing of the Council Chamber, that might have been less expensive; but in my judgment, it ought to be of an enriched character, considering its destination and uses, and with regard to the highly decorated style of the exterior.

Was any estimate given of the expense of the interior decoration of the Council Chamber?—No separate estimate.

Or any separate drawing?—There were drawings in abundance.

The question refers to the interior of the Council Chamber?—There were plans.

Were there any perspective views of it?—I do not remember any.

Was not it the fact, that there was no intimation given to you as to the fitting up of the Council Chamber, but it was left entirely to your discretion?—Entirely so.

Have you heard any complaint, of some of the rooms in which the clerks sit, being dark and unfit for business?—None, nor do I believe that there are any.

Were any views of the interior of the Courts of Law submitted to any public Authority?—They were not called for.

Did you consider that you were warranted in going to any expense for the

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interior of those Courts of Law?—So long as the building did not exceed the sum asked for, I felt myself bound in making them respectable.

In making your estimate to lay before Parliament, of the sum of money requisite for building the Courts of Law, did you make a minute estimate, or an estimate in a round sum?—A minute estimate.

It is stated at 100,000*l.* which it is supposed is a round sum?—It came so near to 100,000*l.* that I put it down at that.

Did that sum include the new Entrance to the House of Lords?—No.

That was altogether a separate estimate?—Entirely.

In the estimate you gave for the new Entrance to the House of Lords, were you equally unrestricted with regard to the expense of the interior decoration?—There were designs made, and submitted to His Majesty.

Were they approved of by any Public Board?—They were submitted to and approved by the King; and afterwards the plans and estimate were submitted to and approved by the Treasury. The Carriage Entrance was an alteration from the original design, and over which I had no control.

Did you consider yourself unlimited with regard to the expense of the interior decorations of all the public buildings you have been employed in?—Certainly not; but in the buildings that have been referred to, I was never called upon for any details of that kind; I should have made them if I had.

There was one of those Courts of Law, with regard to which you were directed by the report of a Committee of the House of Commons, to make the ceiling and the interior decorations as plain as possible; how were you authorized to depart from that restriction?—I think they are as plain as they ought to be, consistently with the purposes for which the building was erected.

Do you mean that you conceive it would not have been possible to make them plainer?—They might have been plain walls only.

You conceived yourself at liberty, after that direction of the House of Commons, to go to all the further expense that you have gone to in putting in the interior columns and a great deal of interior decorations in the Court of King's Bench?—They were all prepared; the columns that were used there, were mostly what were taken down, they were not new columns.

But you considered yourself, generally speaking, to be unrestricted with regard to the interior decorations of the Courts of Law, so long as you did not exceed the estimate laid before Parliament?—I consider that when I am called upon to make a design for a building, the decorations should be in character with the uses to which it is destined; and after having made the estimate, if that is approved of, that I am at liberty to follow the original design; if I was called upon for any estimate of the interior decoration or particular details, they would be forthcoming.

With regard to the exterior of the Courts of Law, was that building that was pulled down by order of the Committee of the House of Commons, sanctioned by any public authority?—Certainly, by the Treasury.

Have you any immediate prospect of doing any thing to the Home Office?—None.

Jovis, 3° *die Aprilis*, 1828.

John Nash, Esq. one of the Architects to His Majesty's Board of Works, called in; and Examined.

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ARE you carrying on any building now under the direction of the Surveyor General of the Office of Works?—Not immediately under the Surveyor General, unless a portion that is not quite finished of the Duke of Clarence's House may be said to be under the Board of Works, but that is so nearly finished, that I do not include that.

The Committee understand that you have now discontinued to receive the salary of the other attached architects; is that so?—Certainly, ever since Buckingham House has been begun.

Was that in consequence of directions from the Treasury?—In consequence of directions from the Treasury.

Was that occasioned by a memorial presented by you?—I am not quite sure whether there was a written memorial, but it was mentioned by me to the Officers of the Treasury; I believe there was not a written memorial.

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Was it done at your request?—No, it was not at my request; my request was, that they would pay me five per cent, instead of three per cent, which was the abridged salary; and they upon consideration directed that I should only receive a commission upon Buckingham House as being taken out of the Board of Works, and that during that time I should cease to receive any portion of the 500*l.* a year, till Buckingham House was completed; and that I was not to be paid for my jouneys to Windsor, but continue to do the duty at the Office of Works, for which I received the salary of 500*l.* per annum.

Is not the commission you receive upon the building of Buckingham House much more than the salary would have been, added to the three per cent?—I have never made a calculation, but I have no doubt that it is.

Can you state what the sum already expended upon Buckingham House is?—I only know the amount from the sums I have obtained from the Office of Woods; the accounts as to making out or priceing do not go through my hands, they are done by the Officers of the Board of Works; the sum I have received is 10,925*l.* 15*s.* 9*d.*, and that multiplied by 20 will come to about 220,000*l.*

Up to what time is that?—Up to the Michaelmas quarter.

Is not the actual expense incurred so brought to account as not to be payable till about a quarter of a year at least after the time it is incurred, so that the expenditure up to October would not be in course of payment till at least the Christmas following?—No; the principal contracts I have made are, that they are to receive the money one quarter under the other, therefore an account that is made up to Michaelmas should be paid at Christmas, and is generally paid a month or two afterwards.

Upon what plea did you request the change in the rate of per centage from three to five per cent when you began Buckingham House?—From the nature of the employment, every thing being placed under my directions in respect of the Palace, and from the innumerable drawings I am under the necessity of making; every chimney-piece, every detail of moulding, and every ornament about the Palace, is the subject of a distinct drawing, submitted for previous approbation.

Is it not generally the case that the greater the work is, the smaller should be the per-centage?—It is not the practice, and it never was, I think, generally so; it will be found that, unless it is for the building of warehouses or some of those immense expenditures where few designs or drawings or directions are required, that every body has charged five per cent; at least, I have been so paid for forty-five years.

But not to the Government?—For the Government I have never done any thing but under the Office of Works, and that is three per cent. May I explain how that came to be three per cent: At the time that the appointments were made, Lord Liverpool asked me, and I presume may have asked the other architects, whether I thought the Surveyor General should be a professional man or not, and I told him I thought he ought not to be a professional man; he then said, Then, if that is the case, cannot you afford to do the business for the Government at a less per-centage than at five per cent, seeing that the measuring parts and the making out of the accounts will be taken from you, and done by the Board; to which I answered in the affirmative; and then he settled, or the Treasury settled, that it should be three per cent, with a salary of 500*l.* a year, but for that 500*l.* a year there are services to be performed upon which no per-centage is charged.

Have you a salary of 500*l.* a year now?—No.

It appears from the return, that in consequence of your having given up your salary for two years, and having received five per cent instead of three, you have been benefited by that to the amount of between three and four thousand pounds?—Very likely.

Is there any thing in the mode in which you are employed to construct this building, which imposes upon you more trouble and responsibility, than if it had been done in the ordinary way under the Board of Works?—I think infinitely; I think I can show in several instances, that the taking it out of the Office of Works and placing it under me, or (I should think) under any other gentleman's directions, has been attended with immense advantage to the public. I do conceive that it would be impossible for the Office of Works to carry into execution such a building at all; and certainly in such building to do that justice to the public, from the nature of its construction and details, that a private man could

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do. Might I take the liberty of showing this in a single instance: there was required for the palace a great quantity of marble; the method I took, which it would be incompetent almost for the Office of Works to do, was to see all the marble that was in London, and get the prices of it, without letting my purpose be known; I found it impracticable within the time to get the marble required, of the merchants in London, there was not marble enough in London to supply it; I then consulted the Treasury, and advised that I might be permitted to send a person competent, to Carrara, where the marble was to come from, to select the marble; the consequence of that was, that he brought no marble away, but that which he could inspect on the four sides of it, because by giving him the dimensions of every piece of marble we wanted, he was able to reduce it to nearly the sizes required, and by that means inspect every surface of it, which he could not have done here; and every body knows that in buying marble, you often open a great block, and find it unfit for your purpose. The result of this measure has been a great saving, the amount of which I will state, according to the prices returned periodically to the Board of Works by the marble merchants, also what the result would have been, had the marble been bought in London; these (including the expenses) would have been 25,981*l.*; and the cost we have paid, including every expense, is 16,414*l.* making a difference of 9,567*l.* It is all delivered at Buckingham House.

How many columns have you imported?—There are at present 104 Corinthian columns, about 90 of which have been delivered.

Is that all you will want?—I think there is a portion, a small cargo on the water, which has not arrived; but I ought to mention, that since the marble has arrived, I have, through the medium of the statuary, got the marble valued by three merchants and by three of the greatest importers here, and it comes to the sum I have mentioned of 25,981*l.*; therefore I have the concurrent testimony, not only of the prices given at the Board of Works and the prices asked of me, but also of these merchants before mentioned, and here are their certificates [*producing the same.*]

You mean that the actual valuation of the marble after its arrival, by competent persons, amounted to 25,000*l.*?—Yes.

And cost the public 16,414*l.* all expenses included?—All expenses included, duty and all; because, though we had the duty remitted, we had the duty added in order to estimate the value.

Who estimated the value?—One is of the name of Grellion; another is Daniel, a great importer in Westminster; the other is White and Francis, who are the greatest importers; they and Daniel are the two greatest importers in London.

Why could not all this have been done under the direction of the Surveyor General?—In the first place, I do not think that the Surveyor General would have directed that trouble to be taken that I have taken; and then there is all the detail of this, as to the measurement of the marble at the Custom House, the lighterage, the carriage, which was done by my clerks of the works, the correspondence and constant direction and details sent to the person abroad, and in short all the details which can be attended to in a private office, but which are never done, nor can be done in a public office like the Office of Works.

Would it not have been your duty, as one of the attached architects, to have suggested to the Surveyor General exactly the mode that you have pursued?—I have always considered that this was taken entirely out of the Office of Works, and placed under my direction; and perhaps it will be necessary to go on and state how the Office of Works came to have any thing to do with the works at Buckingham House: When I was appointed by the Treasury, it was directed that they should be put exclusively under my direction; a difficulty occurred of my own making, which was, that I did not chuse to have any public money imprested into my hands, and therefore I objected to have any thing to do with the payment of money; a difficulty having thus arisen, it was considered how that could be avoided; I then proposed that it should go to the Office of Works; the difficulty made to that was, that the person that certified the expenditure of the money would be called upon by the auditors to show, not merely that it was expended, but that it was providently expended (and that therefore the Office of Works, not having the execution of the work, could not swear that it was providently expended) and therefore it became necessary for them in some way to be mixed with the accounts; then it was that I proposed, that as far as the bills were concerned,

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I should have liberty to make estimates and contracts, subject to the approbation of the Office of Works, and then, that if they did not give me an answer to that within a certain number of days, it was to be taken to be a fair contract that I was about to make, and I was to be empowered to enter into it. This arrangement has perhaps turned out to be of less advantage than was expected; it would seem that they then were to measure the works and to make them into bills, and I had nothing to do with it but to give the directions, and superintend the execution of the work, and where I could to make a contract; in that way it went into the Office of Works, and the Office of Works are no further connected with the Building than to measure the work, and to price it according to the agreements previously made, where there are agreements previously made, and according to the Office of Works prices, where there were no previous contracts, and to make out the accounts, with which I have nothing to do, nor do I know how they are measured.

Then is the Committee to understand that the Board of Works has no control as to the designs that are made by you with regard to Buckingham Palace?—None.

What responsible person has any control or check over those plans?—Those designs that I make, are made by the direction of His Majesty, approved by His Majesty, signed by His Majesty, and countersigned by the Minister; I can produce some of them to the Committee.

What Minister?—Lord Liverpool and Mr. Robinson were the Ministers at the beginning, and they have signed the general designs.

What difference is there in practice between your control at Buckingham House, and Mr. Soane's at the Courts of Law, or any other public buildings?—I have nothing to do with any public buildings but the Palaces.

What difference is there between the control you exercise at Buckingham House, and that which you have exercised at any other public buildings you have previously had to do with; for instance, the Duke of Clarence's House?—In the one instance I receive all my directions from the Surveyor General of the Board of Works, and in the other I receive my directions immediately from the King, and submit the estimates to the Treasury, and receive authority for the execution from the Treasury.

Does the Surveyor General interfere in the least degree in the Public Buildings, with regard to the designs or elevations?—I think he is only the organ of communication to the Treasury; and I presume that in all designs that I send for Public Buildings, the Surveyor General, when he receives my plans, communicates with the Treasury, and receives the directions which he afterwards gives me.

So that the only difference is, that you communicate with the Treasury through the Surveyor General, and in the other instance with His Majesty?—Not the only difference, for there is also this great difference, that in ordinary cases, when I have made my general design, nobody interferes with me in the details of that general design; but here I am controlled and interfered with in the details of every part of the building.

Then in the case of Buckingham House, your plans do not go to the Treasury till they have been already sanctioned by the King?—Never; I am called upon in the first instance, to make a design for any building required by the King; when such design is approved of by the King, His Majesty's commands are communicated to the Treasury. If the design is sent back to me with directions to execute it, I apply to the Treasury for their authority.

Does not that entail upon you a very considerable increase of trouble, as compared with any other Public Building?—Immense; and that will be evident when I say that I pay drawing and other clerks about 1,500*l.* a year, who are principally employed for Buckingham House.

You have of course not commenced this work without some notion of the probable expense of it; what did you estimate the expense of Buckingham House?—There are estimates before the Treasury of every thing I have done; in the first instance, if the accounts had been made out by me, or under my direction, and I had controlled the mode of measuring and the method of priceing, I should in character hold myself professionally responsible for the excess of the expenditure above the estimate; but how can I do that when the designs are made out by me, and the bills of the cost are made out by other persons, and priced by other persons, without my control, how is it possible that I can know how far they correspond with my estimate.

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Do you mean that you have not made any estimate?—I have.

What is the amount of it?—There are several estimates; the first estimate which was sanctioned, was 252,690*l.*

When was that?—That was delivered the 20th of June 1825, and the 26th of May 1826; at the head of that estimate it was stated, that it did not not include sculpture; it was stated also, that the chimney-pieces, the Parquette floors, the Scagliola columns, the screen columns, at Carlton House, and the chimney-pieces at Buckingham House and Carlton House, and other articles from those buildings, were to be used again; all the chimney-pieces were sent to Windsor, also the Parquette floors, also the state doors; therefore those articles will have to be replaced, which of course could not have made any part of the 252,000*l.*; and that sum does not include my commission, nor the clerks of the works, but it includes every thing else.

Will you define what is meant by Sculpture?—Sculpture, in this statement, means figures; it does not mean the ornament of rooms, such as the frieze of a cornice, but it includes, for example, the figures at the top of a pediment. I should state, however, which probably every gentleman knows, that when you come to speak of ornaments and enrichments, they are rather indecisive terms, because the expense of them depends upon the quantity there is of them; and therefore I stated to Lord Liverpool and to Lord Goderich, that the degree of ornament which I had supposed in my estimate, was that degree of ornament that was found in St. James's Palace, and that if there was any extraordinary degree of ornament beyond that, it would be an additional expense over and above the estimate.

Did you include the Corinthian capitals?—Certainly.

What is the last estimate that has been made?—I was desired very lately to send in an estimate of what the probable additional expense would be, over and above the first estimate; and this is the Estimate I delivered to Mr. Goulburn [*producing the same.*]

What is the date of it?—The 12th of February 1828. In that estimate the sculpture is 16,425*l.*; that includes the external sculpture to the house and wings.

Does that include the sculpture to the arch at the entrance?—No.

Does the estimate include that?—No.

Did you, after delivering that estimate, which amounted to 252,000*l.*, deliver any other estimate to the Treasury, and receive a sanction for proceeding upon it, previously to the one which you now state that you gave in recently?—No, I did not.

Was there any material alteration made in the building, or ordered to be made in the plan of the building, from the time that you made that first estimate, in May 1826, to the present time?—None in the form and dimensions of the building, but other alterations have been made; it was originally intended that the triumphal Arch (if I may so call it, as it is appropriated to the victories) should be of stone, and that has been since altered to marble; I mean to say there is no alteration of the building as to the quantum of building, but there have been alterations made as to the materials that are to be used.

Was the arch included in your original estimate?—Yes, the arch, as a stone arch, was included with the Corinthian columns, but not the sculpture of the arch.

From the time you made that first plan, and gave in that first estimate, was any alteration made in the building, so as to induce you to vary that estimate?—Nothing as to the quantity of the building; much as to the materials. With respect to the pavements of the buildings, for example, instead of a common paved floor, I was directed to make the floor of the hall and the lower gallery of marble; and in the designs which have been since made for the details of the inside, instead of their being no richer than those of St. James's, they are infinitely richer; all which were alterations as regard the estimate, but not the plan.

Must not that have considerably altered the amount of the expense?—Very considerably.

Was there any estimate given to the Treasury, of the increased expense required to carry into execution the alterations?—None, and none could be given, because they are alterations made as the work proceeds.

Have those alterations been made without reference to the Treasury?—The greater number of them have not been carried into effect.

Were those that have been carried into effect done without reference to the Treasury?—I do not recollect any thing but the marble floors, and the Or Molu capitals for the columns, which have yet been done.

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As far as you are able to state, what difference in the expense did the alterations you were directed to make, produce in the original estimate?—I do not think it is in my power to answer that question as to the amount, because many of those things that are ordered are not even yet begun.

Can you state the difference with regard to what has been actually done?—There are 104 capitals ordered; I do not know whether there are six, or sixteen, or sixty of them done.

The Committee wish to know what difference that makes in the expenditure, and whether you have had any authority from the Treasury for that?—I had no authority from the Treasury for that which I have altered; but very few of the things have been begun; for example, the columns and the marble floor, I believe, are all that are begun, except some additional plaster ornaments that have been ordered to be put in the gallery.

With regard to the columns that have been begun, do you conceive the Treasury are at present aware of the alteration that has taken place with regard to those columns?—Yes; because in the last estimate, I have given an estimate not only of the things that have occurred, but of the things that I imagined would occur.

Then you have presented to the Treasury an estimate of the increased expense that would be occasioned by the alterations made subsequently to that first estimate?—Yes, of the alterations made and to be made; because I have got the details of all the estimates.

Did your first estimate contemplate an entire new building of Buckingham House?—No, only additions, as will be seen by the plans.

Have not you, since the date of the second estimate, pulled down the old library of Buckingham House?—Yes.

Has any estimate been given of the additional expense consequent upon that change?—It will not be attended with any additional expense which the contingencies of the first estimate will not cover.

Will you proceed to state the other articles of the last estimate, which were not included in the original estimate?—The marble chimney-pieces, exclusive of the marble, as near as I can estimate them, come to 18,970*l.*; but those chimney-pieces must not be considered an addition to my estimate, because that expense arose in consequence of the chimney-pieces that were at Buckingham House and Carlton House being taken away, which made it necessary to provide others.

Are those chimney-pieces to be executed in England, or at Carara?—I am glad the Committee have asked that question, because it gives me the gratification of showing the benefit arising from the providence of having sent to Italy for the marble; all those chimney-pieces will be made from the offal of the marble that was procured from Italy, and that to the amount of 6,000*l.* so that the saving produced by that measure is a great deal more than I have mentioned. The next item in this estimate is the Parquette floors, inlaid floors, and oak floors, amounting to 12,631*l.*; the next is the State room doors, and doors in the King's apartments on the ground floor, 4,400*l.*; the next item is the marble floors in the hall grand staircase gallery, exclusive of the marble, 2,967*l.* that is for the workmanship alone.

Is that the excess above what it would have been according to the original design, or is that the whole expense?—That is the excess.

Is the marble floor laid down?—It is not laid down, but the greater part of it is prepared, ready for laying down.

Is that cut out of the blocks of marble which you procured from Italy?—Yes. The next item is the marble floor in the open gallery over the great portico, which is upon a level with the State drawing-room, which was ordered to be paved with marble instead of stone; that comes to 290*l.* Then I have put into this estimate the cost of the marble that has come over for those columns; that is, 19,800*l.* Then there are some extra works, which could not have been foreseen, and which are extras over and above my original estimate; I was obliged to make an artificial foundation for the South Wing and for the triumphal arch, for the ground was a quicksand, and I was under the necessity of digging out the quicksand and making an artificial foundation; the expense of these works is 900*l.* The next item in the estimate is the expense of the temporary sheds, hoards and storehouses, to be removed and sold at the end of the work; about 2,000*l.* Then there is the expense of raising the reservoir at Hyde Park Corner, which is 300*l.*; that is the reservoir which supplies the water of the Palace; and on account of raising

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the water in the Serpentine river, I was under the necessity of raising that also. Then there is the expense of adopting Hiort's patent flues, 600*l.*; these are flues calculated to prevent smoke.

What is the expense of the marble arch?—The marble arch, as a stone arch was included in the original estimate, that marble which came afterwards includes the marble arch.

Have you made any estimate of the expense of working that marble?—Yes, the expense of working the marble is included in the 19,781*l.*, except the sculpture.

Are the Committee to understand that the addition in that estimate is what you reckon for the working of the marble?—Yes.

And that you conceive will be sufficient for that purpose?—Yes.

What is the gross amount of the sums you have mentioned in addition to the original estimate?—The total amount of what I conceive will be required to complete the Palace as it originally was intended to be, and with the additions that have been already made to it, will come to 331,973*l.* including the first estimate.

In this sum of 331,973*l.* you do not include any purchase of property in Pimlico?—No.

Do you include any expenses that have been incurred in the alteration of the garden at Buckingham House?—Yes, that I believe is included; the garden, as far as it has gone, is included.

Is that included in the 252,690*l.*?—I believe it is included; my reason is, that this estimate of 252,690*l.* was the estimate of the 26th of May 1826, which is more than the estimate of the 20th of June 1825, from the circumstance of the garden and some other things being included.

Are you aware whether any houses have been purchased in Pimlico, for the purpose of giving space to the Palace?—I know there have been none.

Were the alterations that were made in the floors and chimney-pieces and other things, which make the estimate amount from 252,000*l.* to 331,000*l.* in consequence of orders given at various times?—Yes; but the greater part of them were stated in the original estimate, as not included in that estimate.

Was any estimate given in between May 1826 and February 1828, to the Treasury?—None, that I recollect.

Then all those expenses were incurred between May 1826 and February 1828, and no estimate given in to the Treasury, of the amount?—No estimate of them was given in to the Treasury.

Have those expenses been incurred?—The chimney-pieces have in some degree, but not in a great degree. The sculpture is in part incurred; but that was, though not estimated, considered as part of the original design. Some of the marble chimney-pieces are ordered; of the new chimney-pieces, perhaps one-fourth part may be in hand, the others are not ordered; but the designs have been all submitted, approved and ordered, which enables me to say what the expense will be. The state-room doors are not begun; the marble floor in the hall is perhaps more than one-half finished; the gallery over the great portico is not begun; the extra works unforeseen in the foundations are done; the raising the Reservoir at Hyde Park Corner, on account of raising the Serpentine river, is done; and Hiort's flues are made.

Was any portion of the old material at Buckingham House used?—Yes, a great deal of it; all the old bricks.

Any of the timber?—Very little timber; most of it was sold by the Office of Works.

Do you conceive there would have been much difference between building a new house from the ground, and altering the old house?—I suppose about 10,000*l.*

What would that consist in?—It would consist in brick walls and a great deal of stone, that we have used again; and a variety of things of that description.

So that if Buckingham House had been pulled down, and a Palace had been built elsewhere, the old material being used as at present, there would have been little or no difference in consequence of changing the site?—I think not more than 10,000*l.*

Were you consulted upon that point, of building it afresh upon a new site, or allowing it to remain where it now is?—Of course, I can have no objection to answer that question; but it may be conceived that that question must be answered only by repeating conversations upon this subject; how far it is proper to do that, I do not know, but, so far as I am concerned, I can have no objection.

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Did any thing pass between Lord Liverpool and yourself upon that subject?—With respect to the site of the old Palace or a site for a new one, Lord Liverpool, I presume, knew nothing till the plans were presented to him.

Was not the inducement to Lord Liverpool to agree to extending Buckingham House, that he conceived that their would be a considerable part of the old Buckingham House left entire?—As far as regards myself, I had no communication with Lord Liverpool upon that subject.

Can you give the Committee any notion of the expense of the marble Arch as an insulated thing?—I cannot do it now, because it is a subject of calculation, but I will endeavour to calculate it, if it is wished.

Will it not be necessary, before that is undertaken, to have an estimate of that work laid before the Treasury?—The greater part of that is done; the columns are all made, and the capitals are all here.

Has any estimate as yet been required from you, of that Arch, by the Treasury?—It is included in the estimate of 252,000*l.* which was delivered to the Treasury.

Does the estimate you delivered to the Treasury contain in detail all the parts of the building you contemplated?—It does.

And among others, as a part of that estimate, it contained the probable cost of the Arch in question?—Yes, in stone, exclusive of sculpture.

Since that time it has been determined to build it with marble; have you formed any estimate of the additional expense which would thereby be created?—No, I have not.

Can you do so?—I can.

But no such estimate has been required by the Treasury?—No.

Have you received any specific sanction from the Treasury for the change of the material of stone for marble in the Arch?—Not in writing, but verbally, and by an understanding that the marble which I was authorized to buy was partly for that object.

Is the cost of working the marble for the Arch included in the sum of 19,800*l.*?—It is.

Is the Arch to be entirely of marble?—Entirely of marble, as far as the exterior goes, but all the interstices are filled up with brick, and no marble is used that could be dispensed with.

Had you an intention of building it of solid marble?—Never for an instant; and if it was necessary to demonstrate that, I could show the designs that the man took with him to Carara, in which every bit of marble is figured.

Then your design is to face with marble as you would face with stone?—Yes; and we face only with marble wherever we can do it; but, though it would have been built solid in stone, I never had an intention of building it of solid marble.

You alluded to the Reservoir at the top of Buckingham Gardens, did you consider it absolutely necessary to place it in the spot which it at present occupies?—I did.

Without regard to any inconvenience from its being there, with reference to the triumphal Arch which stands near it?—I never understood that the triumphal Arch was to have any thing to do with the garden.

Does it not appear from the situation of it, that it could have reference to nothing else?—By its position I should think so; but I know that it was never contemplated to use it as an entrance to the gardens, nor was it ever possible, for a carriage could not get from the garden to the front of the house, and there is not any entrance in the garden front; and if the plan of the Palace had been consulted, the impracticability would have been seen, and also, that if the Arch was made use of as a way to Constitution-hill, there must be a turn round to get into the road, and I altered the place of the basin to make room for such a turn.

Was the Arch begun when you made that cistern?—I altered the position of the reservoir in consequence of the Arch.

Why was it necessary to have the cistern there?—To receive the water from the Serpentine river, it being the highest ground in the garden; to supply the water for the fountains, should any be in the gardens, and also for the supply of the ornamental water that is in the garden, and for this reason, that in the course of the summer the water will dry and diminish, and this cistern is intended, besides supplying the fountains, to make good the exhalation that will take place in the summer.

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Will not the position of that cistern prevent a straight road being made from the Arch to the Palace?—There is no entrance to the Palace on that side, nor ever was; it was never intended there should be an entrance there.

By whose authority was that Arch ordered?—I do not know.

Of what stone is the Palace built?—Of Bath stone.

Do you conceive that to be sufficiently durable?—I consider that with respect to climate, which is the only thing there is to guard against, that Bath stone will last infinitely longer, supposing it is taken out of the best quarries; I consider it will last infinitely longer than Portland stone, I know that from experience.

Is not it a great deal cheaper?—Yes.

Do you know the proportion? I should think it is one-third cheaper.

Does not it depend a great deal upon how you take it out of the quarry?—Yes, and what quarry it is; we have always our stone marked, to show how it lays in the bed; we never place a stone in the building in any other way than that in which it laid in the quarry.

Does not it work a great deal cheaper than Portland?—Yes, there is the great saving.

Is not mosaic gold a very expensive article?—No, it is the same price as brass.

You intend to use mosaic gold to the tops of the iron rails round the court of the Palace?—That is the command I have received.

Is the expense of that included in the estimate you have read?—No; I was going on to state, that when Mr. Goulburn desired me to send in the estimates, besides the estimates for those things which I considered as authorized, knowing that there were many things contemplated although they were not yet ordered, I thought it right to apprize Mr. Goulburn of what these expenses would be, and I gave him an estimate of a number of things that will occur; therefore you are not to consider 331,000*l.* as placing the King in the Palace, with it completely finished, because there are other things of which I have delivered estimates to the Treasury, and of course I wait the Treasury's orders to carry them into execution.

Does that 331,000*l.* include interior ornaments?—It includes the ornaments, supposing they are not more expensive than those in the Palace of St. James's; but in the estimate I have made of them and delivered to Mr. Goulburn, I have put a sum down which I think will be quite sufficient.

Does the Bath stone corrode more than the Portland stone?—I think not, and it is much more easily cleaned.

Does not smoke affect it more than the Portland stone?—Not more, certainly; St. Paul's is as black as jet, that is Portland stone.

Have you any other estimate of the expense of any other alterations which are intended to be made?—I have a rough estimate of the expense of sundry alterations which are likely to be required, a copy of which I delivered to Mr. Goulburn on the 12th of February 1828; the first item is "Brass gates and railing, instead of iron," not merely the tops of the railing, but the whole railing is to be of mosaic gold (which I call brass,) that comes to 6,900*l.*

Is that sum the difference between brass and iron?—Yes; then there is "Brass enriched hand-rail to the great staircase, instead of iron gilt, 3000*l.*;" "Brass capitals to the statuary columns, (104 in number) instead of scagliola gilt, 1,560*l.*;" "Inlaid work to pavement in hall and gallery, 800*l.*;" "Enriched ceilings to thirteen state rooms, 13,600*l.*"

That is over and above what they would have been if they had been only as rich as those at St. James's?—Yes; "Ditto to eight rooms in private rooms towards the flower garden, 1,800*l.*; ditto to picture gallery in the North wing, 900*l.*, ditto to hall and staircase, 3,000*l.*" Those are according to designs already fixed upon, and supposing that the rest of them will be equally rich; "Ditto to the lower galleries, 3,000*l.*" The next item is the "gilding to the ceilings;" but of the probable expense of that I cannot form any conjecture.

Does the original estimate include gilding as far as it exists at St. James's?—Yes.

Would the expense of that gilding be nearer 5,000*l.* or 10,000*l.*?—I should think somewhere between the one and the other.

Is this for the gilding for the additional enrichment that is to be made, or is it the whole gilding?—The gilding of the enrichments. Then there are "Eighteen scagliola lapis lazuli columns, 900*l.*; eighteen or molu capitals to them, 540*l.*"

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Then those eighteen scagliola columns were not contemplated in the original estimate?—Not at all. The next item is, "Mahogany shutters and plate glass to all the state-rooms, to answer the doors, 4,200*l.*" The principal part of that additional expense is for putting plate glass into the panels of the shutters. The next article is one that I should explain: every body knows that in casement windows the wet is very likely to come in; and there is a man that has obtained a patent for an invention which I consider will entirely prevent that, and it furnishes an infinitely better fastening: this has been adopted in all the windows in the house, and that makes an additional expense of 400*l.* The next article is, "Scagliola dado to all the state-rooms on both the floors;" the expense of that is 3,000*l.* The next article is, "Scagliola walls to staircase and hall and lower gallery, 4000*l.*" That is a composition, a sort of scagliola which they do the walls with in Russia, and in them they inlay painting in colours and gold, particularly gilding. My directions are, that the hall and staircase shall be of this scagliola, inlaid; and as well as I can estimate it, the scagliola walls to the staircase and hall will cost 4,000*l.* as before mentioned.

Is that more expensive than common scagliola?—Yes, if it is all inlaid, not else. Another article is, "Framed wainscoting for hangings in all the state-rooms in the picture gallery, and in the rooms of the ground and principal floor in the apartments towards the flower-garden, 3,353*l.*"

What do these items amount to altogether?—£. 50,953.

Have they been submitted to the Treasury?—The estimates have been delivered to the Chancellor of the Exchequer, and I wait the approbation of the Treasury.

Is there any one wall of the old palace standing?—The whole of the back wall of the new house, part of the middle wall of the new house, all the cellars of the basement story, are old; then all the doors and things that belonged to the old house, are used as the doors of the offices of the new house. There are also the division walls of those rooms remain; the front wall remains, with alterations in it.

Are the Committee to understand that all the estimates you have mentioned since the original one of 250,000*l.* have been sent to the Treasury since the 12th of February this year?—They were sent on that day.

And none of them have been approved?—I have had no approbation signified.

Some of them are proceeding?—Some of them are, but none are proceeding but what were a part of the original estimate, only different in material.

Is not it your intention to alter the present Wings at Buckingham House?—Yes; I must there submit to public censure; after those wings were built I did not like them, but I said, I hoped it would not be necessary to pull them down; I was ordered to raise them to the height of the body of the House, for the purpose of making an additional number of bedrooms; I have submitted designs for that, which have been seen by the Duke of Wellington, and he admitted it was a great improvement, and it is, together with this estimate, before the Treasury, but I have not official directions to carry it into execution.

Is there an estimate for the raising of the Wings?—Yes.

Is it included in the estimate you have stated to the Committee?—No.

Will you state the amount of that estimate?—I have not got the estimate here, but I believe it is about 25,000*l.* for each wing.

You stated with respect to the Reservoir, that it was to supply fountains?—Yes; but that does not include the fountains themselves; I know it is in contemplation to make two fountains.

Are the Fountains included in the estimate you have given?—No.

Have you included in the estimate any ornamental stone-work for the gardens?—No, I have included nothing in the garden but what relates to the buildings.

And you conceive that there will be some other incidental expenses beyond the estimates you have given in?—Yes, I think there will be.

Is it necessary, in order to complete the plan you have formed, that any expenditure besides what you have stated should be incurred?—I think not.

You have stated in the former part of your evidence, that your reservoir had reference to the supply of some fountains, it therefore, in that point of view, would be a part of your plan that some Fountains should be built?—That was not the occasion of the reservoir, although it is one of the things I had in my head, when I recommended it; but, supposing there were no fountains there, the reservoir was indispensable; in the first place, it supplies the house, in the next place, from its

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elevation, it supplies the upper part of the house, and it will supply the exhalation from the ornamental water, in summer.

Then your plan of the house and gardens would be complete, without the fountains?—Yes.

Is the expense of the Flower-garden included in the estimates you have given in?—I hardly know what is meant by the expense of the flower-garden; the expense of forming beds and trellis-work is not included.

As far as the building has hitherto gone, can you judge how nearly the expense has come to the estimate?—I cannot; because, as I mentioned before (and which I consider the great defect in carrying this work into execution,) I have nothing to do with the measuring, or making out the accounts.

Do you consider the mode in which this work is carried on as being an economical way of conducting it?—Certainly I do not consider it the most economical.

Be so good as state your reason?—The reason is, that the architect has nothing to do with the expense; after he has made his designs, the accounts are measured and made out by officers over whom he has no control.

Does not the architect make the contracts?—The architect makes the contracts, but not in gross, he contracts for prices; where I have been able to make the contracts in gross, under the order of the Treasury, I can show what the difference is between the highest and the lowest, which will show at once the difference between contracts made in gross and contracts made for prices. Although the prices are contracted for, yet the mode of measuring is secundum artem, and there are so many customs in the modes of measurement, that an estimate formed upon a contract for prices is in a great degree fallacious; for, let any architect of any experience whatever make a contract for prices, and make an estimate founded on those prices, and the work measured and the bills made out according to those prices, yet will his estimate be exceeded to a great degree; and therefore, there is no safe way of guarding against that but by contracts made in gross; and there is an advantage in that in another point of view; an architect before he can make a contract in gross must make a specification, in which specification he must set down every thing that can possibly occur, if he omits any thing, it will come in the shape of a bill afterwards, to avoid which he must digest the whole of his plan. Before an estimate in gross can be made he must digest his plan, and every part of it must be made out, and he must put down on paper every detail that will possibly happen; and therefore you are sure that the architect must do his duty in the first instance; that alone would, I think, be sufficient to induce any person building, to contract in gross. But supposing that he contracts for prices, the consequences will be such, that though the articles in the bill are charged at the prices contracted for, yet if the work be measured in the usual way, the bill will always exceed the contract. I will illustrate this by one or two familiar articles out of many hundreds: If the glass of a window is to be measured, some measurers will measure the glass between the outer frame, which of course includes the inner bars, instead of measuring each pane separately, and of course measuring more glass than there really is; again, painter's work is measured by the yard square, containing nine superficial feet, and supposing the price to be 9*d.* per yard, which is 1*d.* per foot, there being nine feet in the yard; yet, if the piece to be measured be no more than one foot wide, they will measure it by the foot lineal, and charge 3*d.* or 4*d.* per foot lineal, which is 2*s.* 3*d.* or 3*s.* per yard superficial, although there is scarcely any difference in the real value; and the like is the case in every article where there is the slightest pretence for measuring or charging in any other way than by the price contracted for; of this builders are aware, and when they contract for a building in gross, they wave all those advantages; and it is these circumstances, and others of a similar nature, that architects estimates founded on prices are always exceeded, and the contracts in gross are always much lower.

Do you consider that work may be as effectually done by contracting for it in the gross, as in the way in which it is conducted in the Office of the Surveyor General?—Certainly, if the clerk of the works does his duty; but a clerk of the works is a very essential officer, and that is one of the great improvements that could be made in the Office of Works; the clerks of the works ought to be practical men, they ought to be men used to carry buildings into execution, a better description of workmen, intelligent in the practice of every trade employed in building, and not architects; in their employment, they should be the first man in the

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the building of a morning, and the last at night; they should inspect, and return weekly to the architect, the quantity of materials delivered, and, with the specification in their hands, they should prevent or reject bad materials or defective workmanship; if any day-work is done, they should keep an account of it, and it should be returned regularly every week, and those returns would become documents for the architect and his clerks to make out the accounts, and guides for the measurers in measuring the work. The duties of the clerks of the works, whether the work is contracted for in gross or for prices, are precisely the same: suppose it is a contract in gross, what does he do? he sees that the materials are according to the contract, and he sees that the workmanship is performed according to the contract; if it is a contract for prices, he can do no more. If it is a contract in gross, he will have a written specification, which is another reason why that plan should be adopted, because then the clerk of the works has a specification of every part of the work, which not only describes the work in a technical way, but describes how it shall be done, and the materials that shall be used; and therefore, if he does his duty, the labour and the responsibility is precisely the same in each case.

Then the clerk of the works is responsible for the goodness of the work, and not the architect?—The clerk of the works is supposed to be appointed by the architect; and, as far as a man can be answerable for what he does not do himself, the architect is responsible.

Is there any such officer as clerk of the works employed in buildings erected under the direction of the Surveyor General?—I can only say this in favour of the Surveyor General; the Surveyor General had a set of clerks of works handed over to him with the office; formerly, the clerks of the works were local architects, some of them have remained, but wherever there has been a clerk of the works to be replaced, the Surveyor General has replaced them by very proper persons, and has had them examined by us, the three attached architects; therefore that is being remedied as fast as it can, but it cannot be remedied till the others have died off. But the clerk of the works, when so appointed, does not make returns to a public office as he would do to a private architect's office, it is a very different thing; you can have from a public office nothing but general superintendence, you cannot have that individual superintendence which there is in a private architect's office. A Surveyor General, not a professional man, cannot be supposed to be competent to give him all the instructions which from time to time become necessary.

In point of fact, is the superintendence exercised by the officers appointed by the Board of Works, less efficient than it ought to be?—That would require me to speak as to individuals, and that I cannot do; but if I may suggest a question as an answer, I would ask, whether it is possible for a clerk of the works, that should be there the first thing in the morning and the last thing at night, to do any private business as an architect any where else.

Do the clerks of the works employed by Government, do private business?—Some of them do. I was going on to say, that, according to the old regime, there was another officer, which exists now, and which is useless, he is called a labourer in trust; now a labourer in trust was essential formerly, because it was the practice of the Board of Works to lay in great quantities of materials, and then they were put into the custody of the labourers in trust; now that is no longer the case: and then they were an inferior sort of men, and those are really the men now that do the business; for there is not only a clerk of the works appointed, but a labourer in trust under him, which I think is totally useless and improper.

Will you be so good as to state in detail the mode of proceeding in the erection of any Building under the Board of Works?—The mode is, that the Architect is called upon by the Surveyor General for the design he wants; he makes that design, and delivers it to the Surveyor General; the Surveyor General, I presume, sends it to the Treasury, and receives the Treasury's directions to carry it into execution; he then puts it into the hands of the Architect, and desires him to carry it into execution. If the Surveyor General thinks proper to have it done by previous competition, he makes a contract by competition for prices for the various parts of the work, the quantities to be ascertained by measurement; then the duty of the Architect ends; the Surveyor General makes his contract, the Surveyor General executes the work, and the Architect has nothing more to do with the accounts, but furnishes the drawings, and examines the work as it proceeds; and though he has been called upon for an estimate in the first instance, yet

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nothing is so unreasonable as to think that he can be answerable in any way for that estimate, when he himself does not control the prices, and make out the bills.

Do you not think it would be a great advantage in all public works, that the Architect should examine the accounts, estimate and survey the work, and see that the cost of the work is in proportion to the work effected?—Most certainly I do. If I may take the liberty to state the way in which I think that ought to be done, it is this: I think that, whether it comes directly to the Treasury through the Office of Works or not, the moment the plan is to be carried into effect, the Architect should have it handed over to him as in a private business; and I think when he has had the works measured under his own directions, and made out the accounts from his own documents, they may, if it should be thought proper, go back to the Office of Works with all the documents from which he has made them out, and go through the same ordeal as they do before the Auditors.

Might it not be attended with a check upon the architect, by an officer of the Board of Works surveying the buildings?—I think that must be left to the architect; if he does not do his duty, he may be complained of; but I think nobody should control him, when once the plans have been approved of, in the execution of them. When the bills come to be made out, they should be measured by the persons that the architect has in his office, and should be priced and the bills made out in his office. Then I think, as in the first instance, the work is directed to be done by the Surveyor General, so at the end of the work all those bills, together with the documents he may call for, should go into the Surveyor General's office, and he should see that the account is made out according to them.

What check would there be on the part of the public upon the architect?— No more than there is in the case of any private individual.

Would it not be desirable that after the building is completed, a clerk of the works, from the Board of Works, should, in company with the architect, go over the work and examine it, to see that it has been properly done?—I only submit whether any gentleman, having had a piece of work carried into execution by his architect, would send for a common man, like a clerk of the works, to come and examine whether his architect has done his duty.

Is it not done now, only not in the presence of the architect; does not an officer of the Board of Works examine the work done afterwards?—Yes, but then the architect knows nothing of that man; he does not know whether he is in league with the workmen; he does not know whether he has measured it according to all the tricks, or without the tricks.

Would it not be more fair towards the architect, that he should go over the work with the officer of the Board of Works, and that that officer should examine the work with him?—In point of quantity, but not in point of quality, because he is not a judge of the quality. I suppose no architect in the world would object to a person coming from the Office of Works to measure with his clerk, or to make out his account with him; and I propose a second examination, I propose that the bills when made out should go into the Office of Works, and then they would see that they are properly cast up, and that the prices are according to the agreement, and in short would examine the bills in every respect.

Supposing your recommendation were adopted, of executing public works by competition and estimate in gross, what practical check would there be upon the architect employing such materials as were specified in the contract?—The architect has no interest in it, as I mentioned before; there is a certain duty imposed on the clerk of the works; I do not mean that he is to take away from the responsibility of the architect, but if the architect does his duty, he has regular returns made to him from the clerk of the works as the building goes on; he goes to the building from time to time, and inspects the materials to see that they are what they ought to be, and he sees that the workmanship is good.

The Committee wish to call your attention to the possible case of an architect, under the system you have recommended, employing throughout, in the execution of his work, materials inferior to those which he had pledged himself to employ in his original estimate?—I do not know how you can have a check upon that, because it is a check upon the man's abilities or his integrity; I know of no check but that of general reputation, nor can I imagine a case wherein the architect can be interested in using inferior materials than those specified in the contract with the builder.

Then there could be no check upon an architect working for Government, unless that architect were to make a contract to do the work for a certain sum?—I think that

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that is the best method, because materials of every kind are specified, and because the cost is certain.

You have been supposing the case of an architect, employed by a public Board, making the contracts as he does for an individual?—Yes.

Supposing the contracts were made by a public Board, not as at present upon pri ces, but in the gross, and that the public Board that made the contracts were to appoint the clerk of the works (subject to the general direction of the architect) to superintend the execution of them, would not that be a method of proceeding more likely to secure the greatest economy to the public in the execution of works, than the present?—Undoubtedly; but then that presupposes a contract in gross, and that the clerk of works so appointed is placed under the control and direction of the architect, as if he had himself appointed him.

And that you conceive would be the most advantageous way in which the public works could be executed?—Exactly; but that would not do if it is done in any other way than by competition in gross.

Are you of opinion that the public might, with advantage, adopt the system of contracting for building in gross, in preference to the mode now pursued?—I have not the slightest doubt of it.

You are understood to state, that in point of fact, a building erected for a private individual is done on better and more reasonable terms than a building that is erected for the public under the present system?—Certainly.

But as the public have a check which private individuals have not, would it not be convenient that contracts should be made by the Board of Works, under the system of estimate in gross?—Yes; but if you deviate from that, and make it a contract for prices, then my answer does not apply.

Will you state why the system of contracting for prices appears to you to be less advantageous than a contract in gross?—I think I have answered that in a former part of my evidence.

Is not the system you recommend for public works the system you actually pursue in your private practice at the Carlton-house gardens?—It is.

Would an architect be satisfied to incur any responsibility for a building, if he had not his own clerk of the works to superintend it?—Certainly not; an architect cannot carry his plans into execution without having a man of his own, who comes to his office and copies his plans and makes his returns to him, and receives his instructions from time to time as the work proceeds.

The Committee wish you to understand by a "clerk of the works," an officer on the part of the Board or individual who makes the contract, to superintend the execution of the contract according to the terms of it?—I think if the architect did not appoint the clerk of the works, or if the clerk of works otherwise appointed is not put under the direction and control of the architect, it would be such a sort of *imperium in imperio*, that they would not agree for forty-eight hours.

How would you give to the public that check over the work as it proceeds, which is now given by the interference of the Board of Works?—I do not think there is any check at present, nor do I think there can be any, unless there was a contract in gross, and the Office of Works were to see that put into execution, taking the designs from the architect and superintending the work; and in that case, all responsibility would be taken from the architect, and the advantage of the executive knowledge he might possess would be lost to the public.

Is the clerk of the works appointed by the Board of Works, appointed upon the recommendation of the architect?—Not generally; that is to say, the architect has nothing to do with the clerk of the works, there being a set of clerks of the works belonging to the office; but whenever a new one is to be named, they call the three architects together, and examine him in point of competency.

The question refers to the clerk of the works employed upon any specific work?—The architect upon any specific work is not consulted in reference to the appointment of the clerk of the works. When the Duke of Clarence's house was put under my direction, there was a contract for prices, and the lowest estimate taken. I thought that I ought to have appointed my own clerk of the works, and I put a clerk of the works there, having previously, as I thought, had the approbation of the Surveyor General; but the Surveyor General afterwards discharged him, and told me that the clerk of the works for the Palace should be clerk of the works for this building, as he would be able to do the duty; the consequence of which was, that the clerk of the works of the Palace received my directions as to what was to be done; but the greater part that was done was done

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by days work, the account of which was kept by him, and the materials used by him without any interference by me, further than giving directions how it was to be done. What was the result, when they came to bring the bills together, my estimate was exceeded almost double. The Treasury called upon the Surveyor General to account for this excess, and I re-examined my estimate, and finding it to be correct, and that estimates had been given also for the several alterations, I could only account for it by the work being done by days work; and I am certain that had it been performed under a contract in gross, that my estimate would not have been erroneous; but every part of the building, as it related to the expense, I had nothing to do with.

Do you consider that in the present mode of proceeding, the clerk of the works appointed by the Board of Works is an effectual check on the execution of the work?—He would be on contracts in gross, if he did his duty.

Do you consider him a competent check?—If he is a competent judge and does his duty, the clerk of the works appointed by the Office is as good a mode as any other; but the clerk of the works so appointed, takes away the responsibility from the architect.

Do not you consider that the clerk of the works is more necessary as a check upon the execution of contracts in gross than in contracts for prices, by measurement and day work?—I think it is exactly the same, I know no difference; I think the responsibility and the duty are the same in both cases, he ought to inspect both the materials and the workmanship. The duty of a clerk of the works is to see that the materials are proper and to see that the work is done properly, that is the whole of his duty; except that if it is done by days work, then it will become his duty to take an account of the time and materials; and except also, that if it is done in gross, then he will have the additional duty to see that the specific articles put into the contract, are carried into execution.

Do not you consider that in the execution of any public work by contract, it is necessary for the architect to have a strict check upon the integrity of the execution?—Certainly, that is part of his duty.

Then supposing that check to be exercised by an officer of the Board of Works, must you not have a superior description of person employed as clerk of the works?—No; I think that the clerk of the works should be a competent workman, capable of carrying into execution every branch of the building, from the digger to the painter; he ought to be as a master of the men employed in the building.

How is the clerk of the works paid?—By the week.

You would think it advantageous that the Board of Works should contract in gross for the execution of public buildings, and that the architect, by himself and his clerk of the works, should be responsible for the execution of them?—I think so.

And you think that mode would be more advantageous to the public than the present system, of contracting upon prices?—I am sure of it.

And you think that that mode of check, by the architect and his own clerk of the works, would be altogether better than the check that might be imposed by appointing a clerk of the works under the authority of the Board which made the contract?—Certainly; I think the one impracticable, and I think the other quite practicable.

Supposing such contracts to be made, with what description of persons would they naturally be entered into?—The architect should send to three or four, or five or six of the most eminent tradesmen in London, and have a competition.

What sort of tradesmen?—That involves another question; if I am asked which I should think would be the safest, I think he had better contract with one man for the whole, because if you contract with an individual for the whole, then, if one man injures the work of another, it will not come as a bill of extras; if the bricklayer, for example, had a separate contract, and you wanted a hole cut to put the carpenter's timber in, he would not make that hole for the carpenter, but if he contracts for the whole, then the making of that hole is part of his work. If a man, in walking over a ceiling after it has got the first coat of plastering, breaks it through, the plasterer would go and mend it; but if it was a separate contract, he would say, I will have an extra bill for that. It is a common thing in bills to see a charge from the plasterer for what he calls making good to the joiner's work; now if the whole were contracted for together, none of these charges would occur; and I think if any person who has been in the habit of paying bills for buildings, were to look them over, and take out of them the articles that properly belonged

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to the building, he would be surprised to see what a number of articles would remain that had nothing to do with the building, and which would never have occurred, if one person had contracted for the whole.

Do you find, by your experience, that it is a safe, and useful, and economical mode, to contract with the builder for the whole work?—Certainly, in all cases where it can be done, but in all cases it cannot be done; and in some cases it might be expedient to contract with the separate tradesmen; but the course most advisable to be adopted, the architect only can discriminate, but in all cases it is most advisable that the contracts should be in gross.

Does not the builder himself contract with the tradesmen under him?—They have their own modes of doing that; there are some builders that buy all their materials and do every branch of business themselves, but more frequently they make their estimates in conjunction with each other, each tradesman furnishing the estimate of his own work, and one of them sends in an estimate of the whole, and contracts for the whole on his own particular responsibility, taking the security which he deems necessary from the others, by which means the employer has all the advantage of having contracted with each tradesman separately, without the risk of charges for extras, such as I before described.

Supposing that a single individual was always contracted with by the Board of Works, what practical security would there be that the materials employed by that single builder would be such as he pledged himself to furnish in his original specification?—The same as there would be if it were a contract for prices. I have always said, that I think the architect is responsible for the care he takes in employing the best clerk of the works that he can; and he establishes such checks upon his conduct, as will satisfy him that he does his duty diligently, ably, and honestly; one of those checks is this, that every week he returns to the office of the architect a statement of all the materials that have been delivered, and certifying that they are good; if there is any day-work done, he keeps the account of the time and materials, and certifies what that day-work is; and there is a general surveillance by the architect and his clerks, who go round the buildings from time to time; and there can be no other check than these, but these cannot be carried into effect but where the architect chooses the clerk of the works, or that the clerk of the works, if sent him, is put entirely under his control.

Can you suggest, in the event of a building being undertaken by a single individual, the best practical check for the purpose of securing that the materials employed by the architect in such building are as good as those which he pledges himself to employ in his specification?—By the covenants in the contract, by the power which the architect has of stopping the work, by the power which he has of sending the materials away if they are not good, and in case he does not within a certain limited time produce others and go on with his work, the contract is annulled, and then a new contract is made. Besides that, there is a security in the contract, which is the greatest check of all, which is this: suppose a man contracts for a specific sum for the whole building, he is paid by instalments upon a certificate being given by the architect, but he will not give that certificate till he is satisfied that the materials are good and the workmanship is good, and then he always takes care to leave something behind; for example, if the instalment is 500*l.* before he gives the certificate he will see that there is 700*l.* worth of work done.

What security have the public, and in what manner can that security be best afforded, that the contractors shall employ materials such as he contracts for?—Only by the surveillance of the architect who is employed, and the clerk of the works.

Then the security to the public consists in this, that the architect has no connexion with the builder, and consequently that his supervision is a check upon the builder?—Certainly, there can be no other.

And they having distinct interests, the public are secured in the same way that a private individual is secured?—Certainly.

Might there not be an additional security afforded in the case of public buildings, by appointing, on the part of the Board of Works, some individual who should, conjointly with the clerk of the works of the architect, attend to the materials used in the progress of the building?—Then there would be two clerks of works instead of one, and I think it impossible they should agree any more than two cooks, who would between them spoil the dinner; they would not agree in any one

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single point, and the infirmities of human nature would rise up, and they would not go on for a week together.

In short, according to your plan, it would be done, as the new churches, for instance, have all been built, namely, that the work is offered to public competition, the building is executed after the plan of the architect, and inspected by a clerk of the works appointed by him?—Exactly; I have no objection to the clerk of the works that the architect appoints, being approved of by the Surveyor General, or named by him, if he is competent, but he must be under the same control of the architect, as if the architect had employed him.

But you only consider the clerk of the works in the light of the foreman of the architect?—Exactly; you must depend upon the character and diligence of the clerk of the works; the only way to make them diligent, is to have checks upon them, and the moment they neglect their duty, to turn them away, as you would in the case of a servant.

How many clerks of the works do you employ in the buildings at Buckingham House?—For expedition, I divide the whole works into three distinct parts, and employ a distinct and separate set of tradesmen to each, as if they were so many distinct buildings; and therefore I have three clerks of the works, and I have a superintendent of my own also looks after them.

Will you have the goodness to look at this Plan of the improvements in St. James's Park, which has been furnished to the House of Commons; you will observe that at the East end of the Mall, the North row of trees comes as far as the trees in the second row; now the Committee have been informed that three days ago, the North row was five trees short of the next row; when were those trees cut down?—I do not believe I cut down above one or two, and those came in the way of the terrace wall; I have not given orders to cut down above one or two, I believe, and certainly not one that could have stood according to the Parliamentary plan.

According to the original understanding of the line of the Terrace, the new buildings was to interfere with only one tree in that row; have you given any orders contrary to that distinct understanding?—Never contrary to that plan, which I presume is meant by the word "understanding."

Will you have the goodness to ascertain, and to let the Committee know as soon as you can, whether under your orders, or otherwise, there have been any trees more than that one destroyed?—I will; I must beg to observe, that a plan like this is a general plan, and that the trees are not put down in it by measurement.

In your original Plan, as submitted to and approved by Lord Liverpool, did the Terrace row of houses along the Park come out as far into the Park as it does at present?—I believe this to be the same Plan that was submitted to Lord Liverpool and approved by him.

What number of trees have you caused to be cut down in the northern line of the Mall?—I will ascertain that.

Is it your intention to alter the Dome that is now at the top of the Palace?—Certainly not; but I have been directed to make some sketches, for the alteration of it. I have been making some sketches, to meet what I have understood have been the objections made to it. I think that any body that sees the dome from the garden, to which front alone it belongs, will say that it should remain as it is; but that is an affair of taste. It unfortunately is seen from the other side, but that was not intended by me, and I was not aware that it would have been seen.

Was it in your contemplation to have concealed it from the Park side?—No, it never occurred to me that it would be seen from that side.

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John Nash, Esq. again called in; and further Examined.

SOME Work appears to be doing towards the end of Buckingham Palace where those two lodging houses are placed; will you inform the Committee what work is carrying on about the Wings of the new palace?—The alterations, or rather the additions, which His Majesty has ordered, with a view to give Him more bed-rooms in both the wings, and to remove what has been deemed to have a bad effect, which is by running up those wings; not taking them down, but running them up to the height of the body of the houses, forming, with the body of the houses, three sides of a quadrangle. I have the Elevation here.

Has that alteration been authorized by the Treasury?—It has been presented to the Treasury with the estimates, and though no written orders have been given, verbal orders have been given for their being carried into execution.

Are those alterations which you mention, likely to cost 25,000*l.* on each side?—Yes, they are very considerable additions as to the quantity of building; the mere alterations of the old would not be 500*l.* of the money, but the additional buildings, by carrying them up to the height of the houses, constitute almost the whole of that estimate.

Does it amount to about that sum of 50,000*l.*?—It does.

Could not the effect have been improved by taking down these projecting three-windowed buildings?—That is a matter of opinion; my opinion is, that those three-windowed buildings might have been somewhat amended, yet not so as to produce the desired effect. I was not at first aware that the effect would have been so bad, but now I think any wings would take from the dignity of a palace; it becomes a house with wings; and if the two designs are inspected, I think the difference will be seen. I am sorry to say I was disappointed myself in the effect of them.

Did you ever make a model of that building before putting it into execution?—No, there was not, unfortunately.

Would it not have been a very fit thing to have had a model first?—A very desirable thing, and it is frequently done.

Do you think, if you had had a model, you would have made it to present the aspect which it does now?—I think if I could in any way have seen the defect (and I think I should have done so by a model) I should have remedied it, certainly.

In reference to a question already put to you, you stated you received verbal orders to go on with the alteration; is it customary with the Treasury to give verbal approbation, and not written orders?—It is a difficult question for me to answer; I have received directions, and I have understood that those directions have come from the Treasury.

You have not received them direct from the Treasury?—No, not direct from the Treasury.

Is there any intention to make an alteration with regard to the Dome?—None by me, and none by any body under whose authority I have executed it.

Is any light conveyed from the top of the dome?—None at all.

Then is it purely an ornamental part of the building?—It forms the ceiling of the room underneath.

That is not one of the state rooms?—No, it is over one of the state rooms.

The dome is not on the state room, is it?—It is not; it is on the room above it.

Is there not a room in the dome, with little windows round it?—There is an attic room over the circular room, and that room it is that goes into the dome.

Will you inform the Committee whether any useful part of the building is lighted by means of the dome?—There is no light from the dome, but the cavity of the dome is necessary to make the room underneath the dome, of a proper height.

Is it a room of great utility?—No, nothing but a common bed-room.

If the dome were taken away, would there be any inconvenience, as affecting the useful part of the building?—None, in respect to the utility of the room underneath; for though it would be a lower room, yet it would be a room that could be applied to practical purposes.

Would it be injurious to the Western or garden front?—Yes, I think so.

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You have said, the application of this increased building in the wings is to bed-rooms?—It is not only to bed-rooms, but there are suites of apartments in the story underneath the bed-rooms. I ought to have mentioned, to show the advantage of these additional rooms, that they were always required; but not thinking that the wings would have had a bad effect, and the idea never occurring to me of raising the height, I made a difficulty as to those rooms, and it was frequently remarked to me that I had not made a sufficient number of apartments in those wings; and it was the urging the necessity of additional apartments in those wings, that the thought of remedying the defective appearance of them, by raising the wings to the same height as the body of the house, occurred to me. Those wings so raised will not only provide the number of bed-rooms required, but suites of apartments on the story below them.

Will you inform the Committee whether the additional rooms in the wings were sought for from any deficiency of accommodation in the main body of the palace?—I certainly did not consider them necessary in the first instance, for in the making the design I had omitted them, though they were suggested by me; but I availed myself of the suggestion, to remedy the defect of the wings.

You think now the addition will be useful?—It will add very much to the accommodation of the palace, in case it should be necessary to provide for the reception of other persons, who are likely to be occasionally lodged within the precincts of the palace.

You were requested, at the last meeting, to bring an estimate of what the Arch would cost; have you that estimate?—I have had great difficulty in endeavouring to do it. The Arch was estimated to be in stone, but when it came to be of marble, the off-falls of the marble have been turned to such a description of use as makes the real cost, over and above the stone, of less moment; and, considering the application of the out-falls, could not make a difference in the arch itself of more than 1,500*l.* or 2,000*l.*; but in the workmanship of the arch it makes a difference of 5,000*l.*

Excepting sculpture?—Yes.

What was the original estimate for the stone Arch?—The entrance Archway was 8,900*l.* The additional expense to that estimate, in consequence of the arch being of marble, is only 7,000*l.* not more, after considering the value of the marble which the outfalls have produced for other purposes, which otherwise must have been purchased. I am now taking into consideration the whole of the marble at 19,800*l.* which is the cost of it; now that comprehends the marble for all the chimney-pieces, besides the whole of the marble pavements in the hall and lower gallery, and the columns, 104 in number, and the steps and pedestals, the outfalls from which marble having furnished.

Is it your opinion that this Archway, instead of costing 8,000*l.* will cost about 15,000*l.*?—Between 15,000*l.* and 16,000*l.* deducting from the cost of the marble such parts as are used for the columns, chimney-pieces, steps and pavements; and this is exclusive of the sculpture.

About what proportion will this Arch bear to that before the Tuileries?—In point of size I don't exactly know what that at the Tuileries is; this is the same size as the arch of Constantine.

Exactly the dimensions?—Yes, I think so.

You were requested upon the last occasion, to ascertain what number of Trees had been cut down?—I have done that accurately; three were on the line of the Terrace, there were two cut down, both of them interfering with the line of the Terrace, and one which stood within that line. [*Referring to the Plan,*] These three are the only trees that have been cut down.

Do you conceive that it would be necessary to cut down any more?—Certainly not for the purpose of executing the work.

Will not the buildings which you are making so close to those trees, kill them in all probability?—That is what I mean to say; for the purpose of erecting the buildings, there will be, I should suppose, no danger to the trees; how far they may be deemed an inconvenience to the Terrace is a thing I do not speak about.

Is the general disposition of the Park, within the new rails, of your invention and under your direction?—It is.

Was any estimate prepared with regard to it?—Yes, of the whole of it.

Be so good as to state what is the expense of laying out the Park in the way it is now done?—The iron railing, gates and lodges, surrounding the whole Park, 7,703*l.*

Are there any lodges built?—No, not yet built.

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Where is it intended to place them?—At the part towards Pimlico; the designs are before the Treasury now; they have not yet given orders for them, and therefore they are not done.

You mean lodges to the side of the Palace entering from Pimlico?—Yes, at the entrance from James-street to the Birdcage Walk. The ornamental water, the forming of the ground for the plantations, the making and finishing of the gravel walks, making roads, draining the whole, and every thing else within the inclosure of the Park, including the alteration of the Malls, is 8,350*l.*

Does it include the two lodges?—One lodge only, the one at Pimlico.

There is no lodge intended to be placed in any other part?—No. Then there is 3,200*l.* for a common sewer.

Does this include the building and pulling down a certain steam engine that was erected there in the winter?—It includes that, which was at the expense of the contractor, being built by him for his convenience. I should explain: this is done for a specific sum, the whole of what I have been mentioning; namely, the railing is done by the yard, but the excavation has been done for a specific sum, and which has saved a prodigious expense in filling up the Carlton House gardens and raising them to the proposed level of Pall Mall, which could not have been done without it but at an enormous expense, has been furnished from this excavation, is included in that specific sum, and which I have reason to believe will not be exceeded.

How much is it?—£. 8,350.

Was that Sewer necessary for the Palace, or for the watering the Park?—No, the sewer is necessary for the buildings about to be erected on the South side of the Park.

Does the water in St. James's Park receive waters from various sewers into it?—No, they are all shut out.

Does it receive its water from the Thames?—Yes.

Is that the only source from whence it derives a supply of water?—There are some few springs, but of no moment.

When that Canal was cleared out two or three years ago, were all the sewers stopped which had emptied themselves into it?—Yes.

Was all this done under your direction?—All done under my direction.

What is your commission that has been charged on this sum?—I have charged nothing yet, but it will be 5*l.* per cent, and is what all architects receive.

Will that 5*l.* per cent be upon the iron railing?—Upon the whole expenditure. All the works we have done at the Palace, and every where else, have been done by tender and competition.

By whom is the iron railing made?—There were three people; one was Thompson, one was Crawshay, the others were May and Morrett, another was Day; in short there were four or five, and we divided it among the three lowest equally; Crawshay had a part of it, May and Morrett do another part of it; I forget who does the third, but it is divided between three of the lowest, and all our works are done by competition.

Is it usual for layers out of the grounds, or the landscape gardeners as they are called, to make any charge for the expense of the boundaries, such as 5*l.* per cent?—They never do it, they merely give designs.

So that you charge the architect's commission upon work which properly belongs to the landscape gardener?—I do not think a landscape gardener could have done it.

Does the landscape gardener make contracts and superintend the execution of the work?—I have a notion he is paid by the day; Repton used to be paid by the day and for his drawings, but he never executed the work, and of course could not charge commission.

Does this charge for laying out the ground include the planting?—It does not include the shrubs; those I could not make an estimate of; it includes the forming all the grounds for plantation, but not shrubs.

Is the commission to be taken upon the gross cost of the shrubs?—Upon the total expenditure.

Who gives orders for the shrubs?—There is a gardener appointed, and he gives in a list of the shrubs; that list is submitted to the Office of Woods; I give my opinion as to whether they are such shrubs as I intend to form the landscape with, or not; then the Office of Woods gives directions for the purchase of those shrubs, and there is a person appointed to see them put in.

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Did you not consult Mr. Hayter, the Kew gardener, as to the evergreens which would live and vegetate well in the neighbourhood of London?—Yes, with respect to Buckingham House gardens.

You have applied the same principle to the area in St. James's as to the gardens at Buckingham House?—Yes; and in addition to that I sent up for my own gardener, and made him superintend the planting, and to discriminate between the trees, and to see that they should be placed properly.

Are you aware of the expense of the trees or the shrubs that have been furnished?—I cannot form the least idea.

To whom is the account of the expense rendered?—To the Office of Woods.

The whole of this work is done under the direction of the Office of Woods?—Yes.

You have taken in a considerable portion of ground on the South side of this new garden in St. James's Park, out of the Birdcage Walk, have you not?—Yes, all the trees are taken in within the railing, except that part which is requisite to form the road.

What is the purpose of doing that?—It is intended that the whole of the interior of the Park should be thrown open to the Public. In one respect I think the apparent magnitude of the Park will be increased by taking those trees in, and they are better protected within the railing than without.

Is not the Road that you have now carried along the Birdcage Walk carried on such a level as must of necessity destroy all the trees on the South side of it?—I think not all of them.

Must not a great number of them be taken down at the end towards the spot where the soldiers exercise?—I cannot recollect how many.

Why was the old level of the Birdcage Walk altered?—There is a variety of reasons why it was altered; it was considered that a level road was better than going up and down hill. This road is to be used by the public at large; therefore as you would lower any other hill, it seemed to be better, and it is necessary, for the houses along the line of it, to have it parallel with the buildings.

Was any public authority consulted upon that subject?—This is a part of the general plan, and was with the estimates submitted (I believe) to the Treasury, and the Treasury have directed the execution of it.

Does the general plan at all describe the change of level?—No, but the accompanying working drawings do; the whole Park has been levelled, and among other drawings, there is a section of the whole line, which shows the level of the road.

The outside of the centre of St. James's Park being laid out in straight lines, would it not have been in better taste to keep the inside in straight lines, for terraces?—When these plans were under contemplation, it was considered whether it should have been symmetrical, that the water should have been made as a formal canal, enclosed by a wall and a balustrade, with vases on the piers, such as is found in gardens. When that was about to be estimated, for the purpose of deciding which it was to be, the estimate, instead of its being 9,000*l.* or 10,000*l.* it would have come to 50,000*l.* on account of the foundations, the greater part of which was bog.

Is there to be an encroachment on the South side of the Park, on the line with the new Terrace?—None on the part without the terrace.

Will not a considerable encroachment take place on the South side of the Park?—I hardly know; I do not know what is termed the Park.

Does that Terrace encroach on the line of the Park?—It does, if the extreme boundary of the Crown property is considered the boundary of the Park.

Taking the line of what was called the Birdcage Walk, from Storey's Gate to the new houses, is there not a considerable encroachment for the terrace?—This engraved Plan, which is in the Journals of 7th June 1827, is perfectly correct. The trees that stand on the South side of the Birdcage Walk, to a certain distance, are necessarily taken down to admit of these houses.

Then there will be a decided encroachment on the Birdcage Walk?—An encroachment! certainly it will be built on part of the ground within the Crown boundary; but the ground on which the houses are to be built is a great nuisance, and the word "encroachment" sounds like reproach.

As to the new houses, under whose direction are they to be built?—As the rest of the new street, and all the improvements about the Town are; the ground will be let to individuals.

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Are any of these houses contracted for?—No; we are in treaty for a portion of them.

Have not offers rather been made, instead of saying a treaty has been going on?—Yes.

As to the centre of the Park, it appears on the Treasury Minute that the clumps of trees are to be fenced round; is that intended to be done?—Yes; it is intended with a very light fence to surround the clumps, but round the exterior of them there will be standard trees, to conceal the fences.

As to the North side of the Park, you are about to construct a Terrace the whole way along, on the site of the Carlton House gardens; will you inform the Committee, if it is true that the level of the top of your terrace will be nine feet above the level of Waterloo Place?—I cannot tell; I know we ascend from Waterloo Place to the level; I think the terrace is not so high above it; I think it is the ground-floor rooms.

Will the Terrace in the open part be of the height of nine feet?—I cannot say.

Will it be considerably higher?—It will; there are steps from the street up to it.

Then it is not intended you should meet a wall, coming down Waterloo Place?—No; it is to rise gradually to the fronts of the houses, and steps to rise from the street to the Terrace round the Fountain.

Will the effect of that be good?—I hope so; there will be a railing.

Then it is not intended that you should be met by a wall as you come down, or that this greater height of the terrace should meet you in the place of a wall?—No; it is an inclined plane from Pall Mall to the street, along the entrance of the houses, which is, I believe, a rise of six feet, and the terrace round the fountain has four or five steps up to it.

What is the distance from Pall Mall to the end of the Terrace?—500 feet, or thereabout.

How high is the Terrace to be, viewing it from the Park?—I think about 15 or 16 feet.

Is that from the level of St. James's Park?—I think it is; we are guided by the height of the offices under the Terrace, for the river Thames is of such a level that we are obliged to keep sufficiently above it, for draining, before beginning the Terrace.

You are considerably above the level of the Thames?—Yes.

Are you aware that some of the intended inhabitants of the new houses complain much of the height of the Terrace, as it gives them so much height for their offices that they do not know what to do with it?—I have not heard those complaints from those for whom I am concerned.

For what reason have you given the new houses a basement story of nearly 18 feet?—Some of them have *entre sols*, but I believe they are only 16 feet. I might have made the Terrace lower, but that the kitchens requiring height came under the terrace, I was therefore under the necessity of making them of a certain height proper for those offices; but the basement stories under the houses are not so high as those under the Terrace, in order to make the lower apartments as low as I could.

Did you give the persons who built on that site any choice as to the height of the basement story?—I could not, for there is a general elevation settled and authorized, which every one who took the ground saw and knew, and to which every person who took ground was to submit; and this necessarily regulated the levels and heights of the stories.

Who fixed it?—I did.

Under whose direction?—I submitted it with the general plans, as every body does. I received no particular direction as to levels; they were the natural consequence of the general design.

Was there any public authority which sanctioned that measure, of the whole of these new buildings?—The Treasury.

The Treasury sanctioned the elevations, did they?—Yes.

Do you consider the Treasury have sanctioned the pulling down of Marlborough House?—No.

Why is it included in this Plan attached to the Treasury Minute?—I do not know; it is part of the general design. When I say they have not sanctioned it, I understand the plan has been generally approved of, but Marlborough House cannot be pulled down without agreeing with the present proprietor.

But that was in the general plan, though not carried into execution?—Yes.

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Why was the line of these new buildings in St. James's Park put otherwise than parallel with the avenues into the Park?—It was thought more advisable to make them parallel with Pall Mall.

Is not the parrallel line offensive to the Park, and never seen in connexion with Pall Mall?—I think it would have been a greater defect if it had not been parallel with the buildings in Pall Mall.

Do you not perceive that the parallel line to Pall Mall would only be visible on the ground plan, whereas the fault towards the Park is visible to every common observer?—So would the entrance fronts to the houses be to every one who went along Pall Mall, and more offensive to the eye, being buildings also.

Here is a return of line here; what are these buildings?—By these buildings it was intended not to pull down St. James's Palace, but to have extended it when these were out of lease, and to have extended a Wing on the West side and another on the East side, leaving the state rooms as they are, and forming a Quadrangle open to the Park.

To the Palace?—Yes.

It is intended to make an entrance at the end towards the Mall and Waterloo Place for foot passengers into the Park?—No.

What was the intention of this opening [*referring to the Plan*?]—It was through the interference of the Duke of Buckingham.

What was the object of making these houses so high?—The object was the convenience; of necessity there were a certain number of stories, and it was necessary each story should be of such a height, these added together would of course govern the height of the building.

With reference to the necessity of different stories being so high, do you consider it necessary that rooms even of the proportions below 30 feet square should be 20 feet high, or that bed-rooms should be 16 feet high?—No, certainly not.

Is not that the plan of the houses building there?—No.

Are not the bed-rooms 16 feet high?—No; I never made a room 36 feet by 24 more than 18 feet high, unless directed to do it.

Do you not fix the height imperatively upon the proprietors by your elevation, without reference to the proportions of their rooms?—I hope I have put them all with proper reference to the proportion of the rooms.

Must not the level you give to the Terrace, for a better effect from the street, produce a corresponding deformity on the Park side?—I think not; and if the elevation be looked at it will be seen that the Terrace is not too high; certainly not too high for the use, nor is it too high for the appearance.

Will it not present a blank wall on the Park side?—No, it is a decorated wall.

[*Here the Witness produced an Elevation of the line of buildings.*]

Is the Fountain determined upon?—I understand so.

Do you not conceive an Entrance to the Park for foot-passengers by steps, or any other way you might adopt, would be of great advantage to the public?—I suppose it would.

Do you not think it would augment the value of the Park you have designed, and of that great street Regent-street, and Waterloo Place?—It would not have much effect upon that; I think it would be a public convenience.

It makes a more direct avenue to the Park, does it not?—From that part of the Town, certainly.

Considering that Regent-street has become a great public walk, would it not afford great advantage to the public, if there were a direct entrance from that street?—Yes.

Would it not improve the effect very considerably, to open it entirely?—I think not; I think every body coming down the street must miss the old portico at Carlton House, and that the fountain Temple is a necessary substitute.

From your designs for the ornamental work, are the Committee to understand that you expect a better class of persons will be induced to visit the Park?—I should think so.

Do you not consider it will be a great advantage to that class of persons to have a better access to the Park than that which Spring Gardens affords?—Nobody can doubt it.

Is it intended to execute that building for the Fountain, as appearing in that plan?—It is the intention, I believe, at present; I have had no directions to the contrary;

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contrary; I do not think it is abandoned. When that design was originally made, it was intended there should be no opening towards Waterloo Place; that was given up, upon condition that there should be a building in the centre; and I was directed to design such a Building as you see in the drawing; and it is daily suggested to me, that the building in the centre will unite the two wings, that, without it, will be merely two wings wanting a centre building, like the Garde Meuble at Paris.

Do you conceive it would be advantageous to the beauty of the situation, that this building should be there?—I think so.

You do not think it will intercept the view between Waterloo Place and the Park?—No, on the contrary, speaking as a painter, it will improve the view; and being an open Temple, you will see the Park between the columns in a most picturesque manner.

Has any estimate been made of the expense with regard to that Building?—Yes.

What is the estimate of the expense?—The Fountain complete, with its sculpture and laying on the water to it (for there is another purpose in this fountain, which is, that after it performs the office of a fountain, the water will supply the houses,) the whole expense will be 8,000*l.*

Did you ever see any example of a fountain with a cupola over it?—No.

Do you think the effect will be good?—Certainly, I think it will; for if the Temple is good as a centre-piece, I do not see the absurdity of having a fountain under a temple, any more than in a conservatory or in any place that is covered over. As to the effect, I think as a temple only, it will be good; and its effect, because it has a fountain in it, cannot be injured, but, in my opinion, improved, as having an appropriation.

Does the sum you have mentioned include every thing?—Every thing.

Do you intend to apply the pillars and portico of Carlton House to it?—As many of the columns as are there are to be used in it, the rest are to be new ones.

Of what stone?—Portland.

What height are they?—I should think they are about 27 or 28 feet, I am not quite sure of that.

Do you conceive that the effect of a Fountain under cover will be good?—I think wherever I have seen them in conservatories, they have contributed very much to the good effect.

But would it have that effect under an opaque covering?—I cannot see this in a different point of view from those; they will see the building as covering a fountain, and the building is so much more lofty than the fountain, it would stand precisely the same, as to effect, as in a conservatory or any other building.

Suppose that the water does spout, will not almost all the beauty, from the glittering of the sun on it, be lost between the cover and the space around it?—I think it will glitter by the light that falls upon it, a great deal of sun will come on it.

Would not the effect be much better if there were a large fountain uncovered, like those before St. Peter's at Rome?—It would not answer the intention of a building forming a centre-piece to the Terraces; and a fountain there, without the building, would be mean, from its want of size; nor could a fountain be made of the scale of that at St. Peter's, nor like that in the garden of Versailles.

Have you not an immense command of water, on a low spot like that, in this Metropolis?—Yes; the Water Company have been applied to, to know what they would take to supply this fountain, giving them the privilege of afterwards supplying the houses.

Is there any want of water?—No.

Why cannot you make it as large as one of the fountains before St. Peter's?—From the immense expense, and from the want of proportionate space. They ask 1,000*l.* per year to supply this small fountain. I say that a fountain upon a small scale, as this must be, in the open street, will, compared with others, as it would be, would be mean and pitiful. I think the Temple will be grand and magnificent; and I think the Temple becomes an ornament within it, which it would not be without it; it was on that principle I formed it. It was not my original suggestion, though I highly approved of it. I was commanded to make a building as a centre, and place a fountain within it, (for the object was to make a centre, for, without a centre, instead of its being one line of building, it becomes two, and, on account of their uniformity, demand a centre.) The Temple is immensely high, and will not interrupt the circulation of the air in any degree;

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and will make a termination, which the street down Waterloo Place (now the portico is taken away) requires.

To what height do you reckon the water will rise?—To any we please; the intention is to raise it 35 feet.

What is the height of the building; how many feet?—The columns are 27 feet, and with a flight of steps it will make 35 feet; it will rise to about the level of the column, and the entablature and dome are all above it.

You will see the top of the fountain of water, will you?—Yes, and a great space above it.

But it will not be seen in Regent-street as you come down it, will it?—Yes, in Regent-street as you come down, for the Fountain is much higher than the level of Pall Mall; the floor on which it stands is five or six feet high; there comes a flight of steps up to it.

When you descend from the Quadrant, and first get a sight of the Fountain, will you see the top of the water?—Yes, certainly.

Does the water that arises come from the level of the top of the steps, or lower?—From the top of the level of the steps. An excavation is made under this fountain, which holds an immense body of water, which will be calculated to supply the houses with water.

From whence do you take the water?—Why, if a plan that I mean to propose to the Government shall not take place, it is meant to be supplied from the Thames; but there will be a proposition presented, after I have had the water filtered, that will produce the purest possible water.

The water supplied to the houses being the water used for the purpose of the fountain?—I think it will do that, and reduce the expense from 1,000*l.* to 300*l.*

This Fountain, if erected, would not in any way prevent the entrance that has been inquired about, by means of Steps into the Park?—Certainly not; but it must not be forgotten that those gentlemen who have taken houses on the Terrace, have taken them upon the understanding that the Terrace is to be exclusively for their use; and if a communication is permitted with the Park from Pall Mall, I do not think it ought to be done by admitting the public upon the Terrace; but this opening on each side can be carried through to Pall Mall, so that if the public are admitted, they had better not be admitted over the surface of the Terrace, but through these Arches underneath, which would give the public all the convenience required, and preserve the privacy of the Terrace to those who have the houses.

Are the Public to be admitted up to the Fountain?—No.

How far are the public to be admitted from that part of Waterloo Place?—To the street on the North side of all that range of houses.

Not beyond the street?—No.

What is to be the fence to prevent them?—The balustrade, and the line of railing which is before the houses, which will be continued along there.

Do you receive a commission on houses building on the site of Carlton House?—Those gentlemen who employ me as their architect do, and no other.

The Terrace, in this Plan which has been presented before Parliament, comes farther into the Park than the one presented and approved by Lord Liverpool?—No, I have it here; it is precisely the same. There is no deviation made from the original plan that was settled.

You were of opinion originally, were you not, that the building of these houses, occupying the ground of Carlton House, would be a source of great immediate profit?—There is a two years' peppercorn rent; immediately after the peppercorn term is over, every body fulfilling their agreement, there will.

Has it not turned out to be a source of great expense?—I know of none, except the expense of making the Park.

But in making the sewers and drains, where these houses are to be built, is there not considerable expense?—There is an estimate for making the sewer, but that has not been completely finished; there is the expense of making a sewer for the use of these buildings.

What is to be the expense of that?—I think the estimate will show it is 3,000*l.*

Is that made by the Government?—It is always done in the new street, and every where.

At present you have received no money at all from this ground?—I do not receive the money.

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But there has been no return as yet?—The ground for the houses is let at four guineas a foot; and as soon as the houses forming to the westward of that centre, and one house eastward on the terrace, the Athenæum, the United Service Club, and other buildings which are begun, and most of them roofed, and in a forward state of finishing, will, as soon as the two years have expired, produce a considerable ground-rent; and other ground is letting every day.

As yet there has been no receipt, and a considerable expenditure?—There has not been a considerable expenditure.

Do you know what the estimate of the ground value will be, when all of it is built?—According to my estimate, if the whole of this plan is carried into execution, after paying all the expenses, I think it will produce 335,000*l.* calculating the ground-rents at twenty years purchase.

Is that money to be raised on the ground-rent?—Certainly, if the ground-rents be sold for ninety-nine years (the term of the leases.)

What will be the income?—Divide that by 20, which is 16,000*l.* a year.

What would the rents be, leaving out Marlborough House?—The rent will be 7,865*l.* 12*s.* for the improvements in Pall Mall, and on the site of Carlton House. The whole makes 7,800*l.*; and on the site of the Palace garden, 3,192*l.*; and on the South side of the Park, 4,714*l.*

That includes all that is built on the Carlton House gardens?—And all that will be built there, and on the other parts of the Park, except Marlborough House gardens.

Is that to produce a rental of 7,865*l.*?—Yes, on the site of Carlton House and Pall Mall only.

What will be the new net rental?—The new Travellers' Club House is 83 feet, at four guineas per foot; the Heralds' College is 138 feet; all the rest are upon the site of Carlton House.

How much does that deduct from the 7,865*l.*?—The Travellers' is 83, and the Heralds' College 138, which make 221 feet, which will make 884 guineas.

What charge will there be to come at that rent?—There is I think 21,270*l.*; that includes the moving the King's stables; the sewer in Pall Mall is 3,000*l.*

Are not the materials of the King's stables a profit?—But this includes rebuilding of the King's stables, and also the additional building in lieu of the riding house; this was part of the additional plan, the moving the stables to that corner.

Are they not to be there?—No part of this plan. Before we can carry that design into execution, it is necessary to take down the present stables of Carlton House, for it interferes with this ground; it was stipulated that they were to be built where the Stationery Office is; and the rebuilding of the stables originally cost 60,000*l.*, but pulling down and building them brick for brick, piece of wood for piece of wood, and window for window, will reduce it to 9,300*l.*; that which would have cost 40,000*l.* if they had been built new, will only cost 9,300*l.* They are to be removed, for we cannot build a terrace without.

Will you sell the materials?—Yes.

His Majesty has got more stables, by taking the stables the Duke of York had?—I understand His Majesty gives up having stables in the new situation; I believe it is understood He is to have some addition close to the new mews, and those stables which were occupied by the Duke of York are to be part of them. That not only saves this expense, but another very considerable expense, which is, removing the Stationery Office, which is now to stand, and which would be 20,000*l.* more.

Therefore that 8,000*l.* or 9,000*l.* is an expense that is to be deducted?—Which ought to be deducted.

And on the other hand, the price to be gained for old materials is to be added?—Yes.

Is that to be deducted from 20,000*l.*?—Yes.

At what do you compute the value of the materials of the present stables?—If they were taken down and sold, it would be above 4,000*l.*; they sell for very little as old materials.

That makes a saving of 13,000*l.*?—Yes.

9,000*l.* it would have cost, and 4,000*l.* you get for materials?—Yes, and which if all new materials would have come to 40,000*l.* Where the beams and every

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thing are brought in without alteration, it is the same in point of cost as if they had been new materials; if sold by auction, half of them would be burnt; none of the cribs and stalls would sell as if they could be used again; this we see in all the houses we sell. Moving the King's stables, 6,800*l.*; and the additional buildings in lieu of the riding house, 2,500 *l.*; and temporary roads, 600 *l.*; this is what Carlton House site will require of outlay; then there is the fountain, 8,000 *l.*; watchmen and clerks of the works, 370 *l.*; making together 21,270 *l.*

You do not include raising the ground?—That comes into the Park.

Making these gardens; is that included in the Park?—That is included in the Park.

Between the houses in Pall Mall and the houses in front of the Park, those little gardens?—Why it may seem strange to say, but the gardens in fact cost scarcely any thing, for the contract with the man who excavated the ornamental water in the Park, stipulated that he should deposit the ground on these gardens; therefore the expense of raising the ground is very trifling, and will consist of the deficiency of the ground supplied from the excavation.

Who is at the expense of the ornaments of that front?—Each individual pays his portion. There is another article which should be put on the other side of the question, which is the old materials of the building to be taken down on the site of Carlton House, which, after those taken to Windsor and the Palace, will produce about 4,000 *l.* which comes to the credit of the estimate.

Has there been an additional expense incurred lately by that iron rail that has been run along to the South of the old road along the Mall the whole way?—That goes to the Park account.

What was your intention in taking in that piece of the Park along the rest of the line?—This was the reason, the original centre walk of the Mall did not lead to the centre of the Palace, and therefore I made the next avenue farther off the centre avenue; and to make it in the middle of the whole of the avenues, I brought the road into the first avenue on the North side; then it became necessary to dispose of the ground between that and the terrace, and I suppose that by being planted (not to take it away from the public) it would prevent a nuisance against that wall all the way.

Is the Public to be shut out of it?—There are gates in every part of it, and it will be open to the public in the way of the other parts of the Park.

In reference to persons passing through the centre, do you conceive the proprietors of the houses would object to their passing through the centre, provided the space opposite to their house was secured to them?—It is difficult for me to say whether they would or would not object; if I were one of them I should not like that the public should have a right to use the whole length of the terrace.

Would it be a violation of their contract to open the centre?—Yes, I think it would.

Do you mean to say it is in the written agreement with the persons who took the houses there, that there was to be no passage?—I know they understand it so.

Was it in the written agreement?—It was the original agreement.

It is the written agreement into which they have entered with Government, that there is to be no passage for foot passengers into the Park?—It was understood by them, when they took the ground, that the public were not to go upon the terrace.

Do you consider the power of the people to pass over the centre of the terrace near the Fountain, would be a violation of the contract with the proprietors of houses?—I think so; I know that most of the proprietors do make the objection.

Would you consider it a violation of the contract, to admit the Public up to their own Fountain, putting it at the cost of the public?—I think, if even the whole terrace had been made at the expense of the public, and persons had taken the ground with the knowledge that there was to be a terrace, and that the terrace was to be appropriated solely to the use of the houses, I think it would be a violation of that contract.

But speaking of a passage on the Parade, down the middle of the opening in Waterloo Place, would it be a breach of the written agreement there should be that entrance?—I think any appropriation of the surface of the terrace, from one end to the other, and as far back as the breadth of their houses went, would be a violation.

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But not in the open part?—Not in the part which leads to the terrace, but over or across the terrace.

Do you mean to say that there was not a written engagement, but a Plan and Elevation, and the persons having that plan build according to it, and that in this original plan there were no steps down the centre, and that they would imagine there never were to be steps?—Yes, and I go further than that; I think they expect, and I know those whom I am concerned for expect there will be a covenant in the lease to that effect, the same as it is in Regent's Park, that certain parts of it shall not be built upon; and the Plan of the Regent's Park is for that purpose annexed to every lease.

You say it will be a breach of the agreement, to give the public a power of passing from Waterloo Place to the Park by any other means than by a subterraneous passage?—Yes, I think so.

By what authority did you take in that portion which forms the road along the Mall, within those iron rails?—As part of the general plan approved of.

The Green Park is extended a little, is it not, by these rails?—Part is taken from one, and put to the other.

Have you reason to believe that all the proprietors wish the terrace should be continuous, and that there should be no passage to the Park at the end of Waterloo Place?—All those I am concerned for, and whose present sentiments I know, are of opinion it should be private; and they consider it as an agrémens exclusively appropriated to them.

Did you never hear till this day, that any persons having houses on this terrace, wished that there should be an entrance for foot passengers in the centre?—No, never. Mr. Alexander, Sir Matthew White Ridley, and many others, have expressed their expectation that it was to be a terrace exclusively for these houses.

Are you appointed as architect to the Woods and Forests?—There is no architect appointed to the Woods and Forests. I am specially appointed to the things that I am employed in.

By whom?—By the Government.

By whom are you appointed to do these works?—I understand, by the Government.

When you say you were appointed by the Government, by what officer in the Government are you empowered to do these works?—By the Office of Woods.

Are you distinctly employed by the Office of Woods to give designs for those houses in Carlton House gardens?—No; I apprehend that there was an appointment or direction from the Treasury to the Office of Forests, to put me under their direction.

Who called on you to give your Elevations for these works, to give the general plan for the buildings in Carlton House gardens?—The probability is that I received the directions from the person whom I may consider my patron and protector. I presume there is an order of the Treasury.

This is the district that, in the division of the business, belongs to you properly?—Yes.

Any new buildings or plans relating to this district you would, in the present course of business, be called on to furnish?—I feel myself to be employed, by what recommendation I do not presume to say, but by the Government of the country, to do this; I receive my directions through the Office of Woods, and I take it for granted the Office of Woods have received directions to employ me. I believe that is a distinct answer to the question.

Do you conceive yourself to be employed as architect to the Board of Works?—No, the Board of Works have nothing to do with it.

As a professional person?—As a special appointment, this design originated with me, no matter from whose suggestion, but it originated with me; it was presented by me or by others to the Treasury, to Government, for their approbation; they did approve of it, and they put it then under the direction of the Office of Woods, to whose proper department it belongs, with directions to employ me to carry my own plan into execution.

Was the choice given to any other architect to give their plans and ideas of building in Carlton House gardens?—I do not know, I should think not.

When you gave your plan and design of Carlton House gardens, did you do it as a matter of your own speculation, or under any official direction?—Official direction! certainly not.

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Under no official direction?—Upon my word it is extremely difficult to answer such questions. Many of the things which have been done, might have been by my suggestions, and many by the suggestion of others; some may have been communicated verbally, others by written instructions; but every thing which has been done, was done in communication with the proper departments of the Government; I have not done any thing of myself or by myself.

You did it on your own responsibility; but no other architect has the advantage but yourself, of producing this plan?—I do not know of any other person who has.

In speaking of Buckingham Palace, you said they were going on with the works, but they were not approved of by the Treasury; you had sent in your plans, but they had not received any approval, but that they were going on?—I certainly am executing portions of the work, which I explained before; I consider them as approved of, or I would not have set about them: I have not got written directions for every individual thing I am doing.

As to the alteration of the Wings, you said there had come no approval from the Treasury?—Then I mean to give this answer, no direction in writing.

Was there no approval?—Yes, there was an approval, because I am carrying them on.

You have received no authority to make them?—No written authority; I have had no directions from the Duke of Wellington.

But the alterations are going on?—Yes, but very slowly.

Have you received any official instructions from any office?—Certainly not, in writing.

You received no directions to give these Plans and Elevations for buildings in Carlton House gardens; you received no directions from the Treasury to give such a plan?—Of course the plans and the designs originated with me; they occurred in this manner: When it was intended that the King should reside at Buckingham House, it became necessary to consider what should be done with Carlton House; then it was that the suggestion (not of me) whether Carlton House could not be turned to some profitable account; and out of that the design which I made arose; that design went to the Treasury, received their approbation, and I understand directions were given to carry it into execution to the Office of Woods, and the Office of Woods directed me to execute it. Every part of it is submitted, as it goes on, to the Office of Woods, and I received their approbation, which I presume is carried before the Treasury. I have had communications, verbally and otherwise, with every department of the Government; and I have not laid a brick or a single thing without having what I call authority.

That is not the case with Buckingham Palace, is it?—Certainly I have not had official directions; I have had that which is tantamount to it. The original improvements in the Town, speaking of the New Street, and the Regent's Park, originally were sent to others as well as myself, and a premium of 1,000*l.* was offered; my plan was approved of, and out of that arose every thing connected with the New Street and Regent's Park; and these later improvements were suggested by me as to the form and manner in which they should be executed. I am going on executing these new improvements, as a continuation of that which was done before.

Part of it is a real continuation?—It begun with a continuation of the original design, which was not completed as far as Charing Cross, and gave rise to the question how far it should be continued. There was a plan to carry it up to the British Museum; part of it was approved of, but not all. I am supposed to be carrying on that on the same terms as I carried on the original, of which this is in part a continuation.

Are the workmen employed in this alteration at Buckingham Palace paid by the Board of Works?—I am not a public accountant.

You have nothing to do with that, nor with the examining of the bills, or making them out?—No.

Nor the measurement?—No.

Nor with the public works on the site of Carlton House?—That is building by individuals.

But the Sewers and the Fountain, how are they done?—By the Office of Woods and Forests.

Are the workmen paid by you or by the Board of Works?—No; I set out with saying, that I objected to have any thing to do with public money; I certify the accounts, they go to the Office of Woods, and then they are paid.

You

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You are going on with the improvements in the neighbourhood of Charing Cross?—Yes, certainly.

They go on very slowly?—We appear perhaps to be going on slowly, but if we went on more rapidly it would cost twice as much money.

Are the elevations of the New Street all approved of as entered upon, by any public authority?—All the improvements of the new street, speaking of the elevation of the houses, are made by me, and approved of by the Office of Woods, and then the builders who built them were obliged to conform to that elevation; I am sorry to say they do not in every particular.

Were the improvements in Regent-street all made by you, or were not some others made by other architects, Mr. Soane, Mr. Smirke, and others?—Yes, but submitted by the Office for my opinion; if a person presents a design for the elevation of a building, and I do not see a material defect, it would be invidious for me to find fault with it; I return it as approved of by me. I understood the question to be, If I made the designs generally; I did, but there are particular exceptions; Mr. Soane made a design, I could not object to his design; Mr. Smirke has made designs, to those I could not object; and others have made designs.

Will you inform the Committee whether in all public buildings you are engaged in, it is the practice to build them from models as well as elevations?—I should be glad to do it, but I conceive it is not the practice.

Do you think it a better way?—It is, but not in adventuring buildings, for such I generally have made the design of the elevation; but all the working designs and details are made by the builders, who are not very scrupulous in deviating from their design, and are not very scrupulous of departing from architectural rules, or of not consulting them at all; and this is the source from which arise the architectural defects in the details of the elevations in the New Street.

Is it very expensive having models?—No, not expensive, and certainly not as compared with the saving that would arise in consequence of it.

Pray have you any distinct account of the sums expended upon the New Street, of what it has cost the Public?—There is my general estimate of it before the Public.

How are you remunerated for your trouble in giving elevations and general plans of these new streets?—Very badly.

How, in what way?—There were articles settled by the Treasury of that day, which were laid before the late Mr. Cockerell, to put the usual professional charge to the several articles. Mr. Wharton, the then Secretary of the Treasury, struck out the greater number of the articles, and condensed the remainder into five articles; and to show the Committee the hard bargain the Treasury made with me as to those elevations, I will tell the Committee what I was obliged to do for that fee, and which is not a fourth part of the charge which Mr. Cockerell put down. I negotiate the original purchase of the ground, negotiate the letting of the ground, make the design for the elevations; I set out the ground for the building, draw up the terms of building, I superintend it in a general way in the execution; I draw the plans on the leases; for all which I receive a fee of one-half year's ground-rent; and supposing I let a plot of ground for a house, say for twenty guineas a year, I receive ten for it.

Have you not also been employed professionally in many buildings in that street?—Only on those articles which are performed for Government.

Have you received no commission from individuals for that?—Not unless they employ me as their architect.

Have they employed you?—Yes; for the Opera-house I received a commission from the proprietors, and from the Haymarket theatre; I made the drawings, and did every thing that architects usually do, for those buildings.

Did you not receive a remuneration for the Quadrant?—No, the Quadrant was built by myself; I took the ground of the Quadrant. Being a peculiar sort of building, it could not be erected house by house, as in other parts of the street, it was obliged to be erected at once, and the speculation was too great for one person. I therefore entered into it, and took the ground at the price at which it was offered to others. I then formed the design, and let it to a set of builders, and advanced them a large sum of money, to enable them to build, to the tune of 60,000*l*. I do not think the Quadrant would ever have been carried into execution but in that way.

Are those persons who contract to build houses, under any obligation to construct those houses with stability?—There is a covenant in all such contracts

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to build substantially, as well as the other usual covenants put in all building leases, such as that they are to build in a substantial manner. I do not give them the detailed working plans further than relates to the elevation.

Are not the houses, particularly those first built, very ill constructed?—They are built as builders generally build; not quite the same as if they are built by private individuals; you cannot get them to do it.

Does the ground on which the University Club House stands, belong to you?—I let them that ground.

You did not build that?—No.

Was that curve at the Quadrant adopted to keep the street upon the Crown property?—No; in setting out the street there were difficulties and circumstances which made it most advisable to make the street in the line it now is. If a straight line had been continued from the Regent's Park to Carlton House, it would have passed through St. Giles, leaving all the bad streets between the new street and the respectable streets at the West end of the town, through which the persons residing in those better streets, and members going to the House of Commons and the House of Lords, &c. &c. must pass before they could use the new street. In forming that street, my purpose was, that the new street should cross the Eastern entrance to all the streets occupied by the higher classes, and to leave out to the East all those bad streets, and, as a sailor would express himself, to hug all the avenues that went to good streets; to effect which is the cause of the line which the new street exhibits.

You were obliged to take a little more to the right than you wished, near Cavendish-square?—Yes, I was shoved to the Westward by the proprietors on the East side of that Square; otherwise my intention was to have entered Portland-place in a straight line from Oxford Road.

Martis, 29° die Aprilis, 1828.

Robert Smirke, Esq.

One of the Architects of His Majesty's Office of Works, called in; and Examined.

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WHAT Buildings are you now conducting under the directions of the Surveyor General?—The Museum, the Post-office, and the Custom-house.

Were estimates given for each of those buildings?—Estimates were given for the Museum and the Post-office, and for part of the work required to be done at the Custom-house.

What was the first estimate given for the Post-office?—£. 200,000.

Was a model made of it?—No.

To what extent have payments been made on account of that building?—I cannot answer the question as to the extent of payments, I do not know it.

To what extent have the builder's accounts been examined?—To rather more than 140,000*l*.

Will the estimate be much exceeded?—It will not be exceeded at all, unless additional works or alterations should be required.

Do you examine the bills of the several persons employed?—Not in detail; I examine those parts on which any question arises.

By whom are they examined in detail?—By certain officers in the Office of Works.

Are they referred to you before they are sent to the Office of Works?—No.

Do you consider yourself as having any check over those bills?—No direct check; but if upon looking over them, I saw any thing questionable, I should inquire about it.

Have you had any occasion to make such inquiries in the progress of the work?—Frequently.

Do you consider the mode in which the business is conducted, as an economical mode, or otherwise?—I have reason to think it an economical mode.

Supposing you were employed by any great company or an individual to make such a building, would you recommend the same sort of audit and control over the bills that is now exercised with regard to the Post-office?—I do not know how such a case could occur, for in the case of any great public board there is no establishment,

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establishment, that I know of, like that of the Office of Works, calculated to make up and examine the accounts.

Do you think that the mode in which the business is now conducted regarding the Post-office, is as economical as any other mode you could suggest?—Certainly, I could not suggest any arrangements by which that work would be conducted in a better or more economical manner.

Is any considerable part of this done by contract?—It is all done by contract for prices, except in small details, about which such contract cannot very well be made.

The contract for prices means, that it should be measured and valued according to certain prices, does it not?—Certainly.

Would it not be more economical to contract for a large part of it in gross, the specifications being very exactly defined?—I do not think it possible to detail the specification of an extensive public building, so as to afford any advantage whatever; it would be hardly possible to avoid some ambiguity in parts of it, which the contractor would not fail to take advantage of.

Are not large works frequently done by contracts in gross?—Frequently; it has been many times attempted, but not successfully.

Was not Waterloo Bridge so built?—I do not know; I believe not.

And Southwark Bridge?—To the best of my knowledge, they were built by contracts; varying according to many contingencies.

You state that the original estimate for the Post-office was 200,000*l.*, which has not been exceeded, and is not likely to be?—I have said so.

What sum is the Post-office likely to cost the Public altogether?—It was stated when I delivered my estimate, that it did not include desks, presses, lamps or moveable furniture, of which no account could be given to me; but every thing else that I could foresee, as likely to be required.

What is likely to be the expense to the Public, not only of the building but the ground on which it stands?—That I do not know; I have no knowledge of the cost of the ground.

Within what time do you suppose the Post-office will be complete, so as to be occupied?—If I can get instructions for those fittings, consisting of the desks and presses, the building will be ready for service by the end of this year.

Do you consider that the designs being made out by yourself, and the bills of costs made out by other persons, and priced by other persons without your control, to be an economical way of conducting public works?—Without some distinct previous understanding as to the manner in which the bills are to be made up, certainly I should say that it would not be advantageous; but in the works upon which I am engaged, I have specified, as far as I could, in what way these works were to be measured and the bills made up; and I have every reason to believe that mode has been adhered to; there are many old established usages in measuring, that are often the subjects of dispute; it is very difficult to get rid of them or to know them, and on that account I have endeavoured to specify, before the contract is made, how the work is to be measured, for, otherwise, my calculations would of course be very uncertain.

Is not the mode of measuring liable to very great difference, and the mode of taking the measures also to great controversy?—Very great indeed; but these are to be avoided in great measure, by making previous stipulations upon the subject.

Is not that difficulty obviated by contracting in gross, for large buildings?—So far as that difficulty applies it is obviated; but then difficulties of another kind arise.

Be so good as to state generally what objections occur to you?—I think that in a complicated building intended for a great public establishment, it would be scarcely possible to arrange every part, and particularly to describe it with such clearness, as to avoid disputes with the contractors; they will take advantage of every expression used in the specification that admits of any doubt. In small works there would be no such difficulty, nor in a building of simple and well understood arrangements; but I do not recollect any instance of an extensive building erected under such contract, where the tender given for work has not been very much exceeded in its ultimate cost.

Do you mean, notwithstanding its having been contracted for in gross?—Yes.

But cannot the architect or builder be bound down by legal contract?—The builder may; but the excess is caused by charges for works that may have been

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omitted by the architect in his description, or not expressed with so much clearness as not to give a builder the opportunity of making an additional claim.

May not some provision be made for this, by stipulation for the mode of determining any deviations arising out of these casual omissions?—Alterations may be so provided for, certainly; but I speak of omissions, or of cases where there is any degree of ambiguity.

Have you extensive private practice besides your public department?—Yes.

In the case of executing for an individual any considerable house or building, did you ever have recourse to the mode of contracting in the gross?—In very few instances.

For the United Service Club, did you not?—Yes, for the United Service and the Union Club.

What is the result of your experience on that subject; are you satisfied with that mode?—No, I should not adopt it generally; I think if I were building another club house I could have no objection at all, nor to any such building, where, from experience, the arrangements can be perfectly understood, and every thing required for it can be foreseen.

Does the mode of building by contract impose on the architect a great deal more of labour and responsibility than the building on the other principle?—Not in the least; the only difference is, that you have to determine and describe all these arrangements before the work is begun, which you otherwise describe as it proceeds; the details required for the building are the same in either case; it may indeed be said to impose rather less labour on the architect, for he has no accounts to make up and certify of a work done under such contracts.

But it becomes more the interest of the architect to watch the work as it goes on?—I cannot see that there is any difference in that respect whatever.

Does it not require, before the work commences, to form a more complete plan of it in all its parts?—Yes, certainly, you must describe all the details; but they must be fully and previously considered equally in both cases.

In private buildings you send in an estimate always?—Generally.

Do you find the estimate for private buildings more closely adhered to than the estimate for public buildings?—Certainly not.

Are they not more correct?—Not at all; I am as cautious in public as I can be in private works.

Is not the estimate generally exceeded in both?—It has not been the case in any I have had; I do not recollect any such instances.

Were you in France on Government business?—Yes.

Had you an opportunity of ascertaining what course the French pursue with regard to their public buildings?—No, I had not.

Are you aware of their course of proceeding?—Not distinctly.

Is there a superintending architect for all public buildings?—No; there are several architects, each having different departments.

Do you conceive that the present system of the Office of Works, with regard to the erection of public buildings, gives as efficient a control as could be contrived in such cases over the expense?—That is a difficult question to answer; I am not aware of any great improvement that could be made; I think that the interests of the Public are as well protected as in any system I can suggest.

What check does there exist to any needless expense of the decorations in the interior?—I am not aware of any direct check.

What check exists in the expense the architect may think it right to go to?—There is no other check than that which exists in the respect he has for his professional character.

I believe you built one of the theatres?—Yes.

Did you build that by contract?—No.

Did you give in an estimate?—No.

You made no estimate?—No, I gave no opinion of what it might cost.

What was the actual cost of it, do you remember?—I cannot recollect.

Was it not 250,000*l.*?—Nearer 150,000*l.*; speaking in round numbers.

That was for the mere building, without any internal decoration, was it not?—It includes every thing.

You are one of the attached Architects to the Board of Works?—Yes, I am.

Is a particular division of the Metropolis assigned to your particular superintendence?—I do not know that it is a division of the Metropolis; there are certain buildings assigned to me, and those buildings are to the eastward of Charing Cross.

Have

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Have you any particular care assigned to you of the maintenance of the buildings belonging to the Public in that division?—None at all.

Can you state to the Committee in what way provision is made for the maintenance of the Public Buildings, in keeping them in repair, under the Office of Works?—I believe all ordinary repairs are superintended by the clerk of the works attached to the office.

Does he consult the Architect?—Never, except when he is directed to do so by the Surveyor General.

Then is there no particular survey, by any of the attached Architects, of the state of the Public Buildings, with a view to such repairs as are required in the course of a year?—They are generally examined once in a year; it has not been done at fixed periods; but I have been called upon at different times to examine them, and report upon certain questions that have arisen in those buildings connected with my department.

That is, you have been called upon from time to time to do it; but you have not had imposed upon you the duty of periodically reporting them?—No, not periodically. It was directed that they should be examined every year; but as it was frequently necessary to have occasional examinations, no particular period has been fixed for the annual survey.

Do you not conceive it would be advantageous that the building should be regularly examined every year?—All those that I have any thing to do with have been examined at one time or other in every year, but not at fixed periods.

Would it be useful if such a survey were made previous to the commencement of every year, with a view to form an estimate upon accurate grounds, of the expense of maintaining the Public Buildings in the ensuing year?—I think that has been done very frequently, and an estimate and specification given of the works likely to be required; such a specification has been given certainly by me.

Do you think it would be an useful practice that it should be invariably done?—I think it would.

Do you not, upon the commencement of a new work, send in the plan and the estimate to the Treasury—No, to the Surveyor General.

Whose authority is it you have to commence the work?—The authority of the Treasury, communicated by the Surveyor General.

If any material alterations take place, you do not do any thing without that order?—No.

Did you deliver any estimate of the Courts at Carlisle, which you built?—No; it was a building that was in a falling state; so that it was put into my hands under circumstances which made it out of the question to ask for an estimate.

Did you give an estimate of the Courts at Lincoln?—Yes.

That was not exceeded?—Not at all exceeded.

Except the foundation?—Any unforeseen difficulties occurring in the foundations were not included in the estimate.

Then the Courts which were built at Lincoln did not exceed the estimate?—They did not exceed the estimate.

They were built by contract?—They were built by a contract for prices.

Was any estimate delivered for Lowther Castle?—No.

What is the amount of commission which you receive upon public buildings?—£. 3 per cent.

Is that the amount of commission which you have received for the Post-office?—Yes.

Can you assign any reason why in building a Post-office, less commission is given to the public architect than in building the new Palace?—No; but I should think there is more trouble (if I may use the expression) in building the Palace, than the Post-office.

Is, then, a greater expenditure charged with a greater sum for the commission?—It is so.

Does not the building of the Post-office bring with it a vast deal of trouble, in consulting those persons who are to be accommodated there?—Yes, certainly.

In all public as well as private buildings, the architect is usually paid by a per-centage?—I have always been paid so.

What is the general per-centage for private parties?—Five per cent.

Does not that obviously make it the interest of the architect to cause a larger expenditure?—Yes, if it can be supposed that it is to the interest of the architect to act so.

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Do you at all know when the practice of paying the architect a per-centage originated?—No, I do not.

You never heard of any other mode?—No.

What is the expense of the repairs that have been carrying on at the Custom-house?—The amount of the bills last made up was nearly 140,000*l.*

What may be the remainder of the expense to be incurred?—I cannot say; I should think, not less than between 30,000*l.* and 40,000*l.*

How nearly is that work completed?—It is very nearly completed; little more remains to be done now, than to fill up the fractures there were in the walls of the different rooms and passages, and to paint them.

Do you think, considering the state in which you found the building, the repairs that you have been enabled to make at the Custom-house will render it a perfectly solid building?—I think so.

Do you think the foundation can be perfectly relied upon?—I have no doubt at all of it.

Do you think the mode of paying the architect by the per-centage, is the best that can be adopted?—I do not know what other can be adopted.

Is it so, in your opinion, when an architect is merely employed in repairs?—I have never been paid in any other way.

In all works, whether new buildings or repairs?—Yes.

Have you in all cases of public buildings, been paid at the rate of 3*l.* per cent?—In public buildings always.

You have not the expense of measuring?—No.

So that you are not obliged to keep any clerks for that purpose?—No; it is a saving of some expense, and of a great deal of responsibility.

You have all the expense of making plans and elevations?—The whole of that expense, the same as in a private work.

What would be the objection to the contracting with an architect for a certain sum for the whole building, so much to be paid, and the building to be finished within a certain time?—I do not think any architect would contract so.

You think no architect would undertake it upon that ground?—An architect could not object to make such previous agreement as to the payment of his services, but he must calculate the amount upon the same basis of a per-centage, for it must have referenee to the extent and value of the work.

Will you inform the Committee whether if you had to examine and control the expenses in the way that you do for any private building, it would not be a more efficient check, and a more economical way of conducting the business, than the way in which it is conducted at present?—I think the public would not have an equal degree of security against any fraudulent collusion.

Do you see any advantage in there being a division of the Town between three architects?—No other but that it prevents interference.

But there is no business done except upon special order, and which is done by the architect in each division?—No.

So that all the work given to an architect in his division, is upon a special order given by the Surveyor General for that purpose?—It is.

In the case of the new Buildings to be executed for the Public, is there any competition instituted for the designs or plans according to which it should be built?—None, that I know of.

If a plan were adopted that had been made by any other architect than yourself, would you direct the work according to that plan?—I could not, nor do I think it would be desirable if it were possible; the plan might not be practicable, and the construction of it might not be practicable, and there would be no responsibility attaching to any one.

It follows, then, almost of necessity, that the only persons from whom designs can be received for public buildings to be executed under the Board of Works, must be the attached Architects?—I do not think it necessarily follows.

Could it not be possible that a building might be executed upon competition, by an architect selected from the competition, and controlled by an architect attached to the Board of Works?—No; it would take away responsibility from all parties.

If you have a competition of architects, and upon that competition you employ one, would it not be possible to control that architect by the authority of a superior architect employed by the Board of Works?—It would be difficult, if not impossible.

How?

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How?—I think I might disapprove of the mode of construction which another would think proper.

Is not this plan actually acted upon by the Commissioners for building new Churches?—Something of the same kind. The drawings of the construction of the proposed building are sent to the Office of Works, and the proposed construction is examined, so far as it is shown, but that gives no guarantee as to its being effectual, farther than in its general principle. If I see that the roof, or any part, is about to be formed in such a way as may render it insecure, the designs are objected to; but there are many things in which the construction of buildings fails, that are not shown upon the drawings, which describe only a few leading principles of the design; nor have we control over the execution, nor any means of knowing whether the plan of construction has been adhered to.

Do you not conceive that with regard to the taste of any building to be executed competition must do good, having the several elevations of different architects?—I do not think so.

Do you conceive the Architects of the Board of Works not liable to error?—No, not by any means; I mean to say that an architect of eminence requires no such sort of stimulus for his exertions.

But where there are several plans, is it not more likely there should be a handsome plan, than where there is only one made?—That which is handsome in these plans may be perfectly inapplicable to the subject.

Do you not conceive that the Public are more likely to have a handsome building erected, for whatever purpose it may be, by having a competition of architects, who send in different plans and elevations?—The best answer to that is by reference to what has been done; it has been tried repeatedly, and I believe has always failed.

Will architects of reputation send in plans where there is to be open competition?—I have never sent in one.

In point of fact, an architect of the first reputation and full of business, always declines public competition?—I believe always; I have always declined it.

Would it be left to the young architects, who have more leisure and less employment?—To those who have little or no practice.

When you were desired to give in a plan for the improvement of Windsor Castle, did you consider that as being by competition, or not?—No, not at all; I was informed that His Majesty desired to see designs from the three Architects of the Board of Works, and from Mr. Wyatville.

In the alterations of the Custom-house, did you make any change in the internal distribution of the rooms?—Yes, a material alteration in one part of the building, which was sanctioned by the Treasury before it was begun.

Was not the Long Room considerably altered?—No; the style of finishing it is different, but the room remains of the same size.

Are the dimensions exactly the same?—The same, except in the little difference occasioned by the projection of the pilasters on each side, which form buttresses, and which diminish the size of the room.

They are intended as strengtheners?—Yes, they are for the purpose of giving strength to the walls.

What was the cause of the failure of the foundation?—The defective piling.

Did the piles give way, or decay?—They both gave way, and decayed.

What timber were they constructed with?—Beech; but there were a few oak piles.

Was it fresh beech?—So it has been stated; I have no means of knowing; we found many parts of it rotting.

Were they of the size and length that was specified?—No, it was specified they should be driven into the gravel; but there were very few, out of 5,000, that reached the gravel.

Did the others stop short in the mud?—Yes.

Then they were not sufficient, even if they had not decayed?—No, the building was giving way in many parts where the piles had not begun to decay.

Suppose they had reached the gravel, do you think they could have been depended on?—I think they might, if the piles had been placed and driven in in a proper manner, and had been of proper quality.

Could they, considering the quality of the timber?—If the beech could have been kept always under water, it would not have decayed.

Robert Smirke, Esq.

29 April 1828.

Is there any thing in the nature of the soil that caused the decay?—No, not in the soil, but in the situation.

Is it sometimes dry and sometimes wet?—Yes.

It was understood in answer to a former question, that the props to the building (the piles) were subject to decay, from being sometimes wet and sometimes dry; you have stated, that the building now is considered by you as in a secure state; will you inform the Committee how you have been enabled to get rid of that evil by the piles being alternately dry and wet?—I have taken out all the piles, and inserted an artificial foundation made of gravel and stone lime.

Are there no piles?—No, I cannot say there are none left; sometimes it was found so difficult, from the quantity of water, to take out a pile, that we left it, and worked all round it.

But not depending on these piles?—Not in the least.

What depth did you go to with these artificial foundations?—About 12 feet below the footing of the wall.

Is that article you mention a compost, technically called grouting?—It is a sort of grouting.

What is the stone you have used in combination with the lime?—It is stone lime.

Lime ground?—It is limestone burnt and pounded.

Then you use a gravel in combination with that?—Yes.

What gravel is that, is it silicious?—No, but it is sufficient to have gravel perfectly free from clay and from every other impurity, whether silicious or not.

Did you grind them together?—No, they are well mixed together.

You throw them into the holes, then; therefore it is merely a combination of pebbles and lime?—It is nothing more.

Supposing there were no attached architects to the Board of Works, would architects of eminence be willing to serve the Public in the erection of considerable buildings, upon a commission of three per cent?—Certainly not.

Taking into consideration that the Office of Works would relieve the architect from as much of trouble and expense as it now does by its establishment, viz. the measuring and keeping the accounts, under such circumstances would you be content with a commission of 3*l.* per cent for great works?—I do not quite understand the question.

Will you inform the Committee, whether, if you were not attached and had not a salary, you would (being employed on the same footing as you are now with respect to the Office of Works) be content to serve the Public at a commission of 3*l.* per cent instead of 5*l.*?—I think, in some cases, it would be a very inadequate remuneration.

You do not consider the trouble of controlling the expense is as much as 2*l.* per cent?—No, certainly not.

At what should you put that trouble?—I cannot say.

You could not name any amount?—No.

The difference between that case supposed, and that in which the attached architect is now placed, is, that he at present receives a salary of 500*l.* a year?—Not altogether, for the attached architect has certain duties to perform in consideration of that salary.

Do you consider that a greater responsibility attaches to you when you are to make the measurements and surveys?— Responsibility as to the accuracy of these measurements, certainly; for I am not now responsible for the accuracy of the measurements at all.

You are now only responsible for the goodness of the plan?—For that, and for the proper execution of it.

Mr. *Henry Rowles*, called in; and Examined.

Mr. *Henry Rowles.*

HAVE you been formerly engaged in building?—Yes, I have.

Have you now retired from that business?—Yes, for the last seven years.

Have you executed some buildings of considerable magnitude in London?—I have.

What are they?—The King's Mint is one.

Did you execute Drury Lane Theatre?—I did, and several considerable works for the East India Company.

Have you executed any works under the Office of Works?—I have.

Can

Mr. *Henry Rowles.*

29 April 1828.

Can you mention some of them?—Only the Mint, at the conclusion of the works. When I built it, it was not under the Board of Works, it was built under the order of the Committee of the Privy Council for Coin, which they issued to the Lords of the Treasury, who gave their instructions to Mr. Johnson, the then architect, who directed me to proceed with the building.

Under whose direction as architect was it then proceeded with?—After Mr. Johnson's death, Mr. Smirke was appointed to proceed with it.

Was the whole, or any part of that, executed by contract?—None.

Was it not executed by contract of any description?—None whatever.

Are you acquainted with the general system and practice of the Office of Works?—Pretty well.

In your private practice, have you often been employed to execute works by the contract in gross?—I did Drury-lane Theatre in the gross.

With respect to works of a similar description?—I have taken several in the gross for the East India Company.

Will you state to the Committee your opinion as to the comparative advantages to the employer, of proceeding by contract in the gross, or by that description of contract for prices which is adopted by the Office of Works?—There can be no doubt about it, that the most economical way for the Public is by public tender in one specific sum.

That is, a contract in gross?—I mean to say, not the bricklayers so much, the carpenters so much, and masons so much, &c. or by prices for each trade, as is the habit of the Office of Works, but in one specific sum, for one person or firm to embrace the whole. I can give an instance of similar contracts, of only a year and a half old; I had reason to believe I should be asked a question to this point. I act as a director of the Saint Katherine's Dock Company, and as such the directors conceived what I have mentioned, namely, a contract in gross, to be the right mode of proceeding with this great building; the consequence was, that they advertised upon two specific contracts, one for the engineer's department, and one for a division of the buildings that come under the architect's department; they first advertised for tenders to be made to them for executing the contract in the engineer's department for a gross sum, and they subsequently pursued the same course for the contract in the architect's department. In answer to these advertisements (where I think two months were allowed for persons to make the tender, and when they prayed to be allowed another month, or another fortnight, for they had not finished their calculation, that period was so granted to them) tenders were received; I took down the amount of them, as well as the architect's and engineer's estimates, previously delivered in before the tenders were opened.

Was this by public advertisement?—Yes, by public advertisement.

State them?—The architect's estimate for warehouses consisting of three stacks, is 223,683*l.*; there were seven tenders, the highest was 285,946*l.* and the lowest 228,964*l.*; the highest bidding 25*l.* per cent above the lowest tender; and the lowest tender being about two per cent above the architect's estimate. The engineer's department was put up under similar circumstances, but there was a part of the architect's embraced in it. The engineer's estimate was 241,883*l.* and the architect's so necessarily connected with it, that it must be executed by the same person, was 42,000*l.*, making together an estimate 283,883*l.* There were four tenders put in for that, the highest was 392,515*l.* and the lowest was 235,000*l.*; the lowest 48,483*l.* below the engineer's estimate; it was 91,100*l.* below the tender that came next to it, and 157,515*l.* below the highest tender.

Was the lowest tender accepted?—Yes, it was; and it is now so far executed, that I have not a doubt the contractor will complete it with advantage to himself.

In this case, the architect and engineer were fixed by the company?—Fixed by the company.

When you refer to the architect, is the Committee to understand that the architect would have undertaken, at the price he has stated in his estimate, to have executed the work?—No; we entered into an agreement with our architect for his charge; we, as men of business, knew that estimates did not always quite agree with the outlay, therefore resolved we would pay the architect's commission only upon the amount of his estimate; and any thing in which he exceeded his estimate, he should superintend without commission.

What commission did you give?—One and a quarter per cent; but we found clerks of the works, and an office upon the premises.

Mr. Henry Rowles.

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You were at the expense of all the clerks?—We are at the expense of the clerks of the works; our principle of doing this was, that if the clerks of the works are to be found and paid by the architects, they might be induced to economize in the number of them for their own advantage; we, on that principle, thought it better to pay them ourselves, for they are so necessary to see to the good execution of the work, particularly when contracts are entered into for gross sums, that we meant not to be limited in that part of our expense.

Who checked the accounts?—The architect.

Did you say that one and a quarter per cent was paid him?—Yes; he was a young man, and wished to be employed on a large public work, which if successful, would be the means of establishing his claim to future public notice. We have the power of amending it, if we should hereafter think fit; it is certainly a very small commission, but our works were not like a Palace or many public works; but there are others similar to them, where most of the works are of one description; an architect having made his drawings for one department, has probably made drawings for 100,000*l.* worth of work at once, without any great further trouble to himself. In our case, the buildings being chiefly warehouses of one class and one sort, we thought we were entitled to have it executed upon a more limited commission than is customary. It would not pay him, if we were building a Palace or any thing of that sort; but we considered altogether the nature of the work, and fixed that commission which we thought would fairly remunerate him.

And it was a work without decorations?—It is a work without decorations.

Do you suppose any architect of established reputation would have made that agreement?—I was a party to the agreement; I will tell the Committee what it was: We allowed him 500*l.* a year salary to manage the purchases and the compensations, that is, to settle the payment for the sites with the several proprietors; we then considered, indeed we knew, what the amount of the whole would come to, and the time it would take to do it, and calculated what commission, added to his salary, would give him 3,000*l.* a year; we did not think we were thus behaving very illiberally, and we did not exclude him from doing any other business.

How long has it been in hand now?—The first stone was laid on the 3d of May last year; it has been in hand longer, for the purchase of the site began long before.

How long do you expect it to be before it will be completed?—Two years from this time.

Did his salary commence from the laying of the first stone?—No, his labours and his salary both began sooner.

The architect has all the expence of making the drawings?—We allow him as many clerks of the works as are necessary for the works; and if he employs them to assist him, we do not interfere to prevent it.

Do you consider that he has no outlay of expense out of that money which you allow him?—Not a great deal; he has some, for one or two clerks who are paid by him; but the clerks of the works make most of his drawings.

Did you say you thought he would have 3,000*l.* a year?—There is to be an outlay of almost 700,000*l.*, take the commission of 1 ¼ per cent on that, and add the salary to that, and divide it by three years and a half or four years, you will find I am nearly correct.

But when you talk of 700,000*l.*, do not you mix the engineer and the architect?—No; I forget the precise amounts; the tenders received were for the first division of it only. A special agreement with an architect for commission is not new; thirty years ago the East India Company made an agreement with their architect, that upon the first 10,000*l.* expended in each year, he should receive a commission of 5 per cent, and upon all sums expended beyond that amount in each year the commission should be only 2 ½ per cent; and he had no salary (save some very trifling amount, to enable him to be sworn an officer of the Company) and he found all his own assistants of every description.

Do you conceive that in this mode of contracting in the gross, you can have as good a security for the proper execution of the work, as in the mode of executing a public building by a contract for prices?—Beyond all doubt; I would prefer it if I were going to execute a building.

For

Mr. *Henry Rowles.*

29 April 1828.

For what reason do you think it is more advantageous for the public or any other employer to proceed in the mode of contract in the gross than by the other method?—Because one man having a larger quantity of work to do in one place, and having it all under his own control, he will do it with more facility than if it was subdivided with others; consequently he will do it for less profit.

The one man, to whom you refer in your answer, is a builder, is he not, by profession?—A builder by profession.

Is it not the practice sometimes to contract in the gross for the respective parts of a public work, with different tradesmen?—Yes, it is.

Do you think that method would have been as economical and as advantageous as contracting with a single person?—I should think not, because you employ a greater number of master tradesmen, who each expect a profit, whereas a less profit over the whole would satisfy one contractor.

Do you think builders in general are competent to undertake the whole superintendence of every department under a contract in gross?—It was my own practice; and I know in the instance of the two contracts for Saint Katherine's docks, nothing can be better done than the works are by each respective contractor; I have before observed, that the engineer's department, which is for making excavations, pile-driving, brick work and masons work, &c. were taken by one man.

Then you conceive that to be the most economical way of building, by a contract in gross with a single builder?—I do; but I do not consider that as applicable to all the Government works.

What exception would you make?—The Board of Works has separate duties to perform, and I would except that part which consists of the supporting and maintaining the public edifices in common repair, the other part being such new buildings as Government shall require, or such additions to the old ones as may be sufficiently considerable to form a separate contract. I would not except in the instance of new public buildings; I have given the Committee my opinion.

Which was, that they could be done by contract with one individual in gross?—No doubt about it; but in the other I reckon the same mode is not applicable, but there you should have a schedule of prices.

Would you suggest any check connected with the contract in gross?—Yes; a table of prices for the most material of the works, should make part of the contract, to prevent the confusion that generally occurs in valuing extras and omissions, which, without such a guide, admit of very great latitude for alteration in the contract; for I do not suppose any public building is executed without an alteration at some time or another.

In the plan?—Yes, an enlargement or some change, which if it is not guarded against by a table of prices for calculating extras and omissions, leaves the architect in a difficulty as to what price he shall take, for he is not guided by the gross sum, as that will not tell him how much he should allow per rod for brick-work, nor how much per cube foot of timber or of stone, &c. &c.; but by a schedule of the material prices he is then guarded, so that if he makes an alteration, by calculating the quantities of work added or omitted, and valuing them by the table of prices, he knows what to add or subtract from the gross sum contracted, and he is thereby saved from a very disagreeable part of his duty.

Could this practice be observed by an individual who wished to make a great building?—Yes, it is very generally used now; I believe almost every new club-house in London is building on the same principle.

Does the architect supply this table of prices?—I should make the table of the prices part of the tender, supposing that the best means of procuring the lowest price is from the person who tenders for the gross sum; the architect has then only to ascertain the quantities. In the other department, which is maintaining the public buildings, that can only be done by a schedule of prices.

Do you mean by the Office of Works?—If there are new windows or new doors wanted in any part, which is not foreseen, that can only be got at by a schedule of prices; there is no reason why these should not be done by public contract; it would destroy the patronage of the Board of Works, if it were done, the Board of Works having the patronage of appointing the tradesmen; but if you put it up to public advertisement, those whose tenders are under all circumstances most advantageous to the public, will take the contracts.

Do you mean by public competition?—I would put it to public competition once every three years, or for a longer period.

Mr. *Henry Rowles.*

29 April 1828.

Quite open, by way of advertisement?—Yes, or a number of respectable tradesmen to be named to send in tenders.

Would all builders of reputation enter into that competition?—I should think so, if the contract was for a sufficient time to make it worth their attention.

You would yourself?—In former times I would.

What control has the architect over the contractor?—That is all under covenant.

Is it the architect's duty to see that he keeps to his covenant?—It is his duty to see that he builds according to the drawings. The architect who would be called in, if Government decided to build a new building of any kind, would submit his plan; his plan, if approved of, would be referred back, to desire he will provide an estimate of what it will cost, as well as all the working drawings necessary to carry that building into effect, and to make a contract for it, as well as a specification of all the works necessary to be performed in it. When he has delivered that estimate and those working drawings, a day would be fixed to advertise it, and exhibit those drawings to the Public; a day is then fixed to receive the tenders, and you take the lowest, or you take that which may be considered the most eligible.

Will you inform the Committee, whether at the St. Katherine Docks your architect is considered responsible that the contract is fulfilled?—Yes; and there are very severe covenants to give him power to see that the contract is fulfilled.

You consider him responsible to see it performed?—Yes.

With regard to Drury-lane Theatre, had the architect delivered in an estimate?—I think he had.

Who was the architect?—Mr. Benjamin Wyat.

Was the contract in gross, or did it exceed the estimate?—It was hardly a public competition, for the architect delivered the estimate for his own design. Architects were called on by Mr. Whitbread and the Committee, to deliver designs, together with an estimate at which they would contract for doing it, therefore there were not two estimates for the like thing; and the Committee took the design and the estimate they thought best.

What time did it take to finish?—I think, from the time they gave me possession until the opening, was eleven months.

Do you think it advisable to call upon architects to supply designs by public competition?—I do not think there is any objection to it; it will be deviating from the present practice very materially. The county of Middlesex did it the other day with the Pauper Lunatic Asylum; they advertised, and they received a great many designs.

You have adverted to the comparative advantage, in point of economy, in contracting for building in the gross; will you state a little more particularly wherein that advantage consists, as compared with the system of measure and value according to a contract for prices, the account to be discharged by measure and such value?—I mentioned before, that I thought the advantage would be, that one man embracing the whole, would work for less commission than if he had a part.

Are there any uncertainties in the measurement which are objectionable, in the case of a contract for prices?—That is avoided by taking the gross; where measuring is necessarily done, it admits of a great latitude in making out an account. For instance, there are rules in measuring; some take their price by the cube stone without work upon them; others take it by the cube stone, and then measure all their plain work, that is, the worked face; then there is a great dispute which has arisen often, as to how far that plain work is to be measured; for instance, looking at that building behind [*the Witness points to the exterior of the western window of Westminster Hall, which is seen from the Committee room N° 5.*] the face of that stone is worked to have it united as close as those joints are; the two stones that join must be worked a certain way, back, top, bottom and sides; the question is, Are they to measure the face of the stone, and the worked joints of the stone as well, or the face of the stone and part of the joints, or the face of the stone only, to ascertain the plain work. You avoid that dispute (for there is always a dispute about it, I never knew it otherwise) by taking the gross; if you take carpenter's work, for instance, take a roof, some people will measure over the whole surface of the roof, and they take the labour for framing the roof by the square or 100 superficial feet; whereas others will measure and compute the exact quantity of cubic timber in that roof, and charge it at so much a foot for framed work; the

latter

latter is least advantageous for the tradesman, the former is generally calculated at a better price. These and a great many other advantages, which I believe amount to a profit in the management of measuring, are avoided by taking a gross sum.

Must you not have a specification for the mode of measuring, and for the previous contract?—It is rather difficult, I think, (when the ingenuity of all those persons who devote their whole time to measuring and making out builders accounts is employed against you,) to devise arrangements as binding on a contractor as those which are made when he engages for a gross sum.

Does not a contract in gross require a more strict professional attendance than the other mode of building?—Yes, but I do not know that it does more than where there is a contract for prices; where measure and value is paid, no contract exists; and the tradesman can have no interest to execute any thing inferior; his own interest is to furnish every thing of the best, because he is to be paid for the quantity he furnishes, according to measure or weight, and value according to the cost, with his profit added to it; in this case, the very strict professional attendance may be something relaxed.

Do you consider the general mode for paying architects by a per-centage, a good practice?—I do not believe there is any other that can meet it.

You do not adopt it, with respect to the Saint Katherine Docks?—We settled our per-centage; the commission would run to 7,000*l.* or 8,000*l.*, while the salary would not run to 1,500*l.*

You are aware the mode in which the Office of Works proceed with respect to the architects employed by them; and you are aware that there is much of the work that otherwise falls upon an architect, which is executed under the direction of the Office of Works by their clerks, who measure and make up the accounts; do you conceive that in consideration of that difference, an architect of reputation should execute a building for the Public Service for a lower rate of commission, supposing he was not a detached architect, than for a private individual?—To be sure; for you take the great expense of one department of his office from him; his office consists of two departments, one, the drawing clerks, whose salaries he has to pay, the other, the measuring clerks, who have to go into the building measure and ascertain the cubic or superficial quantity of all the works in it, to abstract them and bring them into a bill, and make out the value according to the prices.

And all that he is relieved from in the case of employment by the Board of Works?—I think he is relieved of half the expense.

Half what expense?—Half the expense of doing the duties which would fall upon him, if that part paid by the Board of Works were not paid for him.

What is the difference between an architect's trouble employed in private buildings, and one employed under the Office of Works; is it as much as two per cent?—I should say it is quite as much as two per cent, because the Office of Works take all the responsibility of settling the amount of bills with the tradesmen, they measure their works, and they pay the clerks of the works.

Should you say, that, receiving three per cent from the Board of Works, with 500*l.* a year salary, was equal to receiving five per cent from an individual?—I would much rather, if I had been an architect employed, take three per cent, with the Board of Works taking all the expenses and responsibility they do, than take five per cent from individuals.

With all the responsibilities?—And the responsibilities.

You do not take into consideration the salary of 500*l.* a year?—No, I do not.

Jovis, 1° *die Maii*, 1828.

Mr. *Henry Harrison* called in; and Examined.

Mr. *Henry Harrison.*

1 May 1828.

ARE you extensively employed as an architect and builder?—I am extensively employed as an architect.

As an architect only?—As an architect only.

Did you give the design for the Buildings on Richmond Terrace?—I made the drawings for the buildings on Richmond Terrace.

What considerable work have you lately given designs for?—I cannot say I have lately given designs for any large buildings in London, excepting for a new hospital, called the General Lying-In Hospital, and the New Guards Club House; but I have for a variety of large buildings in the country.

Are they private houses?—They are.

In what way was the work on Richmond Terrace conducted?—The buildings were erected from drawings made by me for my brother, who took the ground upon speculation.

Were the plans submitted to the Office of Woods?—They were; I should observe, the original sketch of the elevation was first submitted by the Office of Woods; it was afterwards altered by me, and submitted, with the entire plans, to Mr. Huskisson for his approval, and they were ultimately approved of by the Commissioners. I was the architect to Mr. Baring's house in London.

You have not undertaken any other work on the Crown Land, have you?—I think that, jointly with my brother, we undertook some works in St. James's-street which was Crown property, some few years ago; those are the only instances I remember.

None in the line of New Street?—None whatever.

Did your brother contract for building of the whole of the houses on the Terrace?—He took the whole of the ground of that Terrace of the Commissioners of Woods and Forests; and he sold three or four of those houses to individuals as soon as that contract with the Commissioners was finished; and the other four houses were built by him on speculation, and they were sold to individuals as soon as, or before, they were finished.

Did he build houses there for the individuals?—As soon as he had finished the contract with the Commissioners, he built four of the houses for four individuals; the others he built on speculation, and he sold them to any person who might apply to purchase them.

Did he build all the houses himself?—He did. I was brought up as a builder, and was originally a partner with my brother, till about the last five years; I had the architectural department, and he the building department.

You have nothing now to do with the building of houses, but merely with giving plans?—Merely giving plans: I was brought up as a builder and an architect, but only within about the last five years I have confined myself solely to the latter.

Does your brother, as a builder, contract in gross with any person under him, or does he contract with the mason for mason's work, and with the carpenter for carpenter's work?—He has in many instances contracted to do the whole, and has executed the whole himself; in other instances he has executed part, and, I believe, the other works, belonging to the mason and the bricklayer, were sent to other builders. In most instances I believe he has executed all himself, until very lately.

In those houses which you say you built for these individuals, not those which you afterwards sold, but which you did upon order, did you contract in the gross to build those houses for such a sum, or were prices taken for the particulars?—My brother contracted to do those houses in gross; they were to be built for stipulated sums.

You were paid per-centage for your plans and elevations?—That I arranged with my brother; I was partly connected with him in business; but the contracts with the individuals were wholly in his name, and I settled with him the proportion of remuneration or profit.

In this contract, that per-centage which the architect would have, was taken into consideration?—Yes.

What

Mr. *Henry Harrison.*

1 May 1828.

What per centage upon plans for buildings do you generally take or charge?—When I superintend the whole, and make the drawings, the usual commission is 5 *l.* per cent.

The working drawings?—Not only those, but all other drawings, and the necessary superintendence, were all comprized under that remuneration of 5 *l.* per cent.

What do you mean by superintendence; do you take into that consideration the measurement, and the overlooking to see that every thing is done, both in respect to materials and also in the workmanship, in a manner that would give satisfaction afterwards?—I do; I take it for granted the architect is called on to attend from time to time, and give such directions to the clerk of the works under him as may be required, and to report if any thing improper is done; his personal superintendence which is required, is comprized and included in that 5 *l.* per cent, as well as the measurement and settlement of the accounts afterwards.

The measurer is separate from the clerk of the works?—He is; but I take it an architect is bound to employ the measurer if he cannot do it by his own people, and pay him for that measurement, and include it in the 5 *l.* per cent. I have known instances, however, to the contrary; but I believe what I have stated, to be the general practice.

Explain in what respect you have known instances to the contrary?—In some instances I have known that, independently of the 5 *l.* per cent commission, architects have charged a per centage for measuring works afterwards where no contract was made, when they have not had clerks of their own competent to perform that department; I have known in some instances these commissions have been paid.

Is it your belief that no architects of reputation ever take less than 5 *l.* per cent upon buildings?—I do not think that architects of reputation do generally take less than 5 *l.* per cent commission, excepting upon very extended works, and that would be the subject of special agreement.

What should you consider a good remuneration for an architect of reputation, as per-centage, provided these expenses to which you have referred, such as superintendence by clerks of the works and measurers were deducted, and to be paid by the person who had ordered the building?—It would depend very much on the nature of the building itself, and its probable cost.

Suppose such a building as that of Richmond Terrace, the whole line of building?—If the architect was not called on for any personal superintendence, but merely to make drawings to carry them into execution, I should think a remuneration of two and a half per cent would be ample. In that I should include the necessary specifications for the detailed operations of the work.

What are called working plans?—Not the whole of the working plans, but such plans and specifications as would enable a builder to carry the works into effect.

You were in the habit of contracting in gross for buildings undertaken when you were a builder?—I was.

Do you conceive that is the best mode to be pursued for the interest of the employer?—If the persons contracting are persons of acknowledged reputation, I should think contracting would be an advantageous way, but not otherwise.

In that case, you would conceive it to be the most economical way?—Yes, I should, and the most certain way.

What do you mean by "not otherwise"?—I do not think it is a prudent plan to pursue to employ any person to erect a building by contract, unless that person is known to carry his works into execution in a proper manner, and be a person of acknowledged reputation. Open contracts have been made repeatedly; any person under an open contract may send in a tender to perform a work. There are not many builders who execute work well. I always consider the plan of open tenders to be a very improvident one, because an architect, however careful he may be, and however attentive in the superintendence of the work, will nevertheless be unable to control the work properly, or to see that it is properly executed, unless the contractor be a person of acknowledged reputation and character as a builder.

You mean, that open competition is not advisable for a contract in gross?—Unless confined to certain individuals.

Can you suggest any measure that would give the Public Buildings of the Town advantageously to composition of the profession generally speaking?—I presume that question to refer to the designing, and not to the execution.

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Both?—The one would require a separate answer from the other. As far as execution would extend, there would be no difficulty in putting the execution of the work into proper and fair competition; there are a sufficient number of reputable builders, who would be very happy at all times to send in proposals and tenders for the work. With regard to the answer as to the designs, it is attended with greater difficulty, and I should not like to give an answer to that question without giving it a little more consideration.

Do you conceive that the contracting, not in gross, but by measurement and value, is a good plan for the employer?—I think the best way, and the most advantageous for the employer, would not be to contract in gross, but to contract by measurement, with the prices affixed, and that those prices should be the subject of competition.

Is it not difficult to obviate the objections and cavilling as to the modes of measurement?—I think the specification containing the nature of the tenders might be so drawn as to prevent any cavilling.

In your experience, have you not found that this plan is practically exceedingly liable to cavil and controversy?—It is sometimes so, unless in the specification, containing the mode of sending in the proposals, it is particularly guarded against.

Have you found in your practice, that you can make specifications so correct that they shall obviate those objections from cavilling and controversy?—I have found from my practice it has been possible so to do; I allude to contracting for prices and measuring afterwards.

What sort of specification would prevent this sort of cavilling, with regard to the stone facing of a building?—The usual way of builders being paid for stone-ashlaring, is for the beds of the several stones to be paid for extra, though in some instances it is objected to, and therefore cavil arises between the measurers. It would not be difficult, in framing the specification, so to word it, that the contractor should be paid for placing the ashlaring complete in its place, and to be paid only for the superficial contents, or its face. By ashlaring, I mean the stone facing to any building.

Is it equally easy in other parts, with regard to the complicated work of mouldings, with regard to glass windows and other parts of architecture in finishing houses, to guard against cavil in measuring?—I think, by a competent architect, a specification might be so drawn as to prevent cavilling almost in every respect.

In all works, whether of labour or of mere material?—In all works: I refer wholly to quantities, and not to prices, which must be the subject of special contract.

Did your brother build the Union Club House at Charing Cross?—He did build the Union Club House at Charing Cross, as contractor under Mr. Smirke.

Did he contract in the gross for that work?—He did contract in the gross for that work.

He gave in a tender, did he not?—He gave in a tender, which I believe was the lowest.

And for which he executed it?—And for which sum he executed it, though I believe at a considerable loss.

Did he not also build the United Service Club?—He is now building the new United Service Club.

But the former one?—He did not.

Is he building it in gross?—I believe he is the contractor for it in gross, but I do not know that of my own knowledge; Mr. Nash is the architect.

Was that put up to open competition for tender?—I think it was not put up to open competition; I think only a certain number of builders were invited to bid for it.

As far as your experience goes, would you say that building by contract in gross is the most common practice?—It is, decidedly, in the present day.

Then probably it is the best?—Not in my opinion.

If you make a contract for prices, must there not be the same attention paid to the reputation of the person you contract with, as if you were a contractor in gross?—Yes, exactly the same.

Then there can be no greater public competition for a contract for prices than for a contract in gross?—None at all.

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Is it more difficult to find persons of respectability, as it must go among a number of persons?—I would not invite any person but of known character to send in tenders, either in the one way or the other.

Is it customary to give a bond for properly fulfilling the contract?—Two persons are generally called on to be security for the contractor, unless the contractor is sufficiently known to render it unnecessary.

Do you think builders in general are competent to undertake contracts in gross?—Not a great many.

Supposing a person of known respectability to be ready to undertake a contract in gross, would not that on the whole be more beneficial to the employer than doing it by prices and measurement?—It would be no otherwise beneficial to the employer, than that the employer would know exactly his utmost expenditure before he begun; though this is generally exceeded, as it is difficult in contracts in gross to prevent extra charges, particularly in large buildings.

Is it the custom to attach to the contract a schedule of prices?—It is sometimes customary, not only when the contract is in gross, but when it is for prices, in order that the extra works shall be known to be executed at a certain schedule of prices, and to avoid cavil, as to the question of measuring and valuing those extras.

Have you, in fact, when these contracts for prices have been made, known the specification you have made avoid all this cavil?—I never had any cavil in my life, when there was a contract for prices.

And you always employed such a specification as you recommend?—I have had it drawn out with the greatest care; and it has been found generally to answer the purpose.

In what particulars should you prefer, for the benefit and advantage of the employer, building by prices and measurement, rather than by the contract in gross?—The advantage that the employer would get would be, that the architect would not be called on at once to make all his drawings for the entire completion of the buildings; if a contract is to be taken in gross, the necessary drawings for the entire completion of the whole must be previously made by the architect, and the architect in this instance has seldom the opportunity of exercising his best judgment, when he is thus so hastily called upon to make the entire designs, therefore the employer does not derive the full benefit of his exertions. In the contract for prices, this is not the case; and this I consider particularly applicable in large works.

Be so good as to explain that?—If I were going to build a public work, I should not like to be obliged to make every entire drawing of it within a short or limited period; I do not allude to the general plan, I allude to the drawings of the entire finishing, as to the cornices, internal decoration, and so on.

Do you conceive that the contracting in gross would be disadvantageous to the employer, provided the architect had sufficient time allowed him to make up his mind as to the details?—I do not think it would be disadvantageous in the same degree.

When the advertisement was sent out for tenders for the Union Club which was built by your brother, can you inform the Committee if all the specifications had been previously made, both for the external building and all the interior parts of it; and whether that specification had been made in full detail by Mr. Smirke?—I have no doubt it was made in full detail by Mr. Smirke, to embrace the external and internal finishings, of every kind and sort.

Was it necessary for Mr. Smirke to make any alterations afterwards, to change at all the specification which he had originally given?—I do not know what might have occurred during the execution of these works, as I had nothing to do with them; but it is sometimes necessary for slight alterations to be made, and care is generally taken in drawing a specification and contract, that these alterations should not affect the contract generally.

The contract for prices?—The contract in gross.

If your brother had undertaken the contract for that Union Club, not in gross, but according to prices, he would not have been a loser by the bargain?—I do not think he would have been a loser.

And it was for the advantage of the employer, that the contract under Mr. Smirke was in the gross?—In that instance it was decidedly so, for, as I understand, my brother lost a considerable sum of money.

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Does not your last answer rather contradict your former opinion?—The answer as to the instance of the Union Club, is against his opinion; but I do not think the instance of the Union Club, being a solitary one, ought to be brought into the question, so as to affect my judgment upon the whole.

Do you think the work in general is as well done, if contracted for in gross by a respectable builder, as when it is done in the way you have suggested, by prices and measuring?—It ought to be done equally well in both cases.

Is it not done cheaper?—I do not know why it should be done cheaper; the calculation is made, in both cases, on the same principle; if it is done cheaper, it must arise from the contractor, in making his calculations, omitting to put down various things, and making errors in the quantities.

Are you at present engaged in any large work?—I am building the new General Lying-in Hospital, in London, and also several houses in Sussex, besides extensive repairs in other places. The new Guards Club House, St. James's-street, I have just finished.

Did you contract for it in gross?—It was contracted for in gross by a person of the name of John Young; I superintended it as architect, and was paid 5*l.* per cent commission.

Are those contracts for those houses in Sussex in gross?—Some in gross and some for prices.

Is there any greater difficulty in the architect instituting an effective superintendence for the contract in gross, than in the contract for prices?—I should think there is no further difficulty in the one than in the other. I should add, another reason why I think it is advantageous to contract for prices is, that all contracts in gross can only imply certain work to be done which is laid down in the specification, and if any omission is made in that specification, it will be the subject of an extra to be paid for in addition to the sum stipulated, and this generally amounts to a considerable sum, and is often the subject of great cavil and dispute; for in a very large building, it requires great care and attention to see that the specification comprehends every thing required to be done.

Cannot stipulations be made in the original contract, how extras shall be paid for, in case any necessity for them should appear?—Great care is generally taken, in drawing a specification, to effect that object; but the law will not compel a person to do that which is not stipulated in the contract, or I should rather say in the specification, to be done.

Will not the same difficulty and the same necessity for minute specification occur in the contract for prices?—I do not think it would.

Why not?—The contract for prices refers to certain different works, and not to the quantities of that work; therefore it is very easy for the contractors to send in prices to do the brickwork at so much per rod, or ashlaring at so much per foot, or stonework at so much per foot cube, and so on; whereas the contract in gross might omit certain parts necessary to the completion of the work, therefore the omission would be the subject of extras, which would not occur if it were a contract for prices.

With regard to public buildings, do you conceive that the contract in gross would not be the best way of executing them?—I do not think the public would derive any benefit by a contract in gross.

In the cases in which you have been engaged formerly, and from your experience, have you found that buildings contracted for at prices have generally been cheaper than otherwise than those in the gross?—They have not exceeded the sum which it has been stipulated by me that they would cost at first.

They have not varied from what a contract in gross would be?—It is impossible to say what a person might be disposed to do by contract in gross; he might make mistakes in quantities, as I should imagine was the case with my brother in building the Union Club House; he never could have proposed to do a work and lose money by it, unless that proposal were made either from an error in the quantities, or some similar error in calculation.

Were there any omissions discovered, or any alterations made in the progress of that work?—I do not know, I had nothing to do with the Union Club myself.

Would you recommend to any gentleman who wishes to employ you, to contract for prices and not in gross?—I should recommend it; although I should say that observation ought to be confined in some respect to the knowledge of the architect, because, if a gentleman wished to know what his ultimate expenditure was, he would

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not come at it by a contract for prices, and the only way by which he would come at that fact would be from the estimate of the architect, after having received those prices from the contractor; and therefore, in giving my answer, that it would be beneficial, I should not say it would be beneficial in all cases, for some architects do not understand the value of the work, but merely the making of the drawings. When an architect is competent to both, I think it would be advantageous to the employer in the instance that has been mentioned.

You think a contract for prices only advantageous when an architect has been bred a builder, or is perfectly conversant with building?—No; where the employer requires to know his ultimate expenditure, it might be to his disadvantage; though it is difficult in contracts in gross to avoid extras, as I have before mentioned.

There are, doubtless, architects who only understand giving drawings; in such a case, which course would you recommend?—I should recommend the contract in gross.

Is it not part of the profession of every architect to understand all the details of building, as well as of working plans?—Many understand all the details of the plan, but do not understand the value.

In such case the contract in gross is most advantageous?—In such cases it may be advantages to have a contract in gross. In many instances architects employ surveyors to measure and value, not having knowledge enough of their own.

Mr. *William Cubitt,* called in; and Examined.

Mr. *William Cubitt.*

ARE you employed extensively as an architect and builder?—As a builder chiefly.

In what large works in London have you lately been employed?—I think hardly any thing that would deserve the name of large public works. I have a large establishment, but it is chiefly occupied in working for different people, which altogether makes a great buisness.

Have you not been largely employed in the new square, and in Belgrave Square, and other places?—Yes, those were speculations of our own. Up to last Midsummer there were three of us in partnership; since then we have dissolved partnership, and my brothers now carry on those (what I call) speculations, and I am carrying on business at Gray's-Inn Lane; I am working exclusively for gentlemen who choose to employ me. I have about 700 men employed in that way; my brothers have about 1,000 men employed near Belgrave Square, not the square itself, that being chiefly the property of the Messrs. Haldemand, and conducted by Mr. Basevi, the architect.

In those works that were conducted by yourself, in company with your brothers, or in what you now carry on, do you contract in gross?—Yes, almost invariably.

Do you consider that to be a mode more advantageous to the employer than contracting by prices?—I think it is more advantageous to the employer.

Be so good as to state in what respects you consider it more advantageous to the employer?—If I were applied to to make an estimate of a building, if it were a contract in gross, I should leave out of view all expenses of measuring; I should examine the drawings which the architect had made for it, and consider the subject well beforehand, and I would then carry it on in the cheapest and best way I could. If it were a contract for prices, to be measured afterwards, I should have to keep a great number of accounts, which in the other case would not be necessary, and to employ people to measure the works, who would be met by others on behalf of the gentleman or employer; a great deal of time is so consumed, and great expense incurred, which in the other case would be entirely left out; added to which it is altogether a disagreeable operation to a builder; and I think he would not work so cheap as if he did it in the gross.

Upon whom would those expenses fall, which you mention are saved in the way of contracting in gross; would they fall upon the employer or the builder?—They would ultimately fall upon the employer, because in settling the prices beforehand, the builder would calculate upon those expenses; and upon every foot of timber or rod of brick-work, he would add what was sufficient to cover those expenses, that is, his own part. The employer has the expense of paying the people who meet the builder.

Can you calculate at all as a per-centage what the value of that expense might be?—I hardly know; it is difficult to say; I think I should not say too much if I called it 10 per cent altogether.

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Upon the whole amount?—Altogether; I should have to pay a measurer one and a half or two per cent; I should have either to attend him at a great loss of time, or I should have to send a confidential person with him, and a workman belonging to every trade to assist him in measuring and to point out the works; and there are other expenses to be paid besides the commission; I should think the builder's expense at 5 per cent would not more than pay his proportion, and I should think that the other side could hardly be much less.

But in entering into your other contract in the way you talked of, there would be a great deal more time expended in making your calculations, would there not?—There is a great deal more time spent upon it; but yet builders in a large way are accustomed to the thing; they very often make estimates themselves, without going into it in that minute way that would be done afterwards by measuring every bit. From the number of houses I have been engaged in building in the various parts of the Town, and of different classes, I should almost at any time trust my judgment in saying, that building will come to so much. I never give in an estimate without going afterwards into the details; I call two or three of my people of different trades, and I get their opinion in conjunction with my own. Having done that, I very often send in estimates, which I have found in the end to be very correct; sometimes we go into it more in detail, and then the estimate may cost perhaps as much as one per cent upon the buildings, but that is all; there are no other expenses to be added to it. If I employ a surveyor to make an estimate of the buildings, I should agree with him for so much money. I do not know when or where he makes the estimate; I do not know nor care about it; there are no other expenses, and there is no person to meet him; for the sum agreed upon would cover it all, and it would be very trivial, compared with the other mode.

Do you contract for prices with the persons under you, viz. the masons, the plumbers, and others?—No; we have attempted it every now and then; we feel the labour costs more than it ought to do; we endeavour to let it by piecework, but we find the evils attending it greater than the other way, and it is better to submit to paying rather more for the labour than submit to the other evil of having it badly done.

In what way is it you proceed in regard to those parts in which you yourself are not actually employed, viz. the plumber's and the slater's work?—I do not do any of the work with mine own hands; but I employ workmen in every department of building; and, having large workshops and ample accommodation for the workmen, there is no difficulty in getting the very best workmen in London, and the best superintendents.

Are you not occasionally put to some trouble and expense when employed under an architect, in proving that you have kept to his specifications and plans and working drawings?—When employed under an architect, if the job is large, there is generally a clerk of the works on the premises; but that would be the case whether it were done by contract in gross, or whether it is to be measured afterwards. The clerk of the works is kept at two or three guineas per week by the architect on the premises, who must see all the work properly performed and done according to his drawings. Where there is no architect, we find it necessary to have such a man as that ourselves, as a superintendent of the whole, to see that it is properly done; but I think, as far as regards that, there is no difference in the expense either way.

You would always recommend contracting with one individual, whatever his particular branch may be, who should take the whole building, and have all the others work under him?—Yes, I should.

Do you conceive that it is considerably cheaper for the employer, when he contracts in gross, than when he contracts by price and value?—Yes.

Do you conceive there is any other disadvantage to the employer, by the contract in gross, which there is not by contracting for price and value, than his being not able to make alterations or remedy omissions?—I think there may be little disadvantage in that way.

Have you found it in your practice to be a considerable disadvantage, or not?—No, not a considerable disadvantage; a trifling disadvantage.

It is not a disadvantage so considerable as to counterbalance the advantage?—By no means, not in any degree.

You have said, that though engaged in a very extensive business, you have had

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had no large works on hand, except merely those which private individuals employ you for; will you inform the Committee whether, when tenders are called for upon account of some large work, you have ever been in the habit of giving in a tender to be employed?—Yes.

For Government works?—If I were applied to to give in a tender for large Government works, I think I should give a tender for it; but it often happens that I am applied to when I consider I have got as much as I can well carry on, and of course I decline it. It depends upon how I am employed at the time. The largest contract I have now in hand, is one for about 15,000*l.* for a private individual, and two others of about 10,000*l.* each.

You are not building the houses near Belgrave Square, they are your brother's work?—Yes, they are my brother's; the Square itself is the work of Mr. Basevi.

You sometimes act as an Architect?—I never call myself an Architect, nor profess to do an Architect's business. If a gentleman, choosing to dispense with the assistance of an architect, comes to me, and says he wants a house built, I sometimes make plans for it, and carry it on in that way. I never charge a commission as an architect, I rather prefer being called a Builder.

Did you act as an architect for a house which you altered for Lord Cornwallis, in Kent?—Yes.

Was that a large house?—Yes.

Your invariable practice is to make use of the contract in gross?—Yes, it is.

If there were an advertisement, would you send in a tender in that way for public competition?—No.

And you never have done so?—Hardly ever; if I were very short of business I should, perhaps; at an idle time of the year, to keep my people together, I might be induced to make a sacrifice; but if it were publicly advertised, I should feel I could not take it without making a sacrifice.

In those houses you are building, or in any that you take in that way, do your people work under a clerk of the works?—Yes.

Do you mean the clerk of the works of the architect?—Yes.

You would conceive it to be advantageous for public buildings that they should be contracted for in gross?—Yes.

The system of contract by prices for value and measurement is subject to cavilling and disputes, is it not?—Perpetually; it is particularly open to it.

Are the rules of that in any way settled?—There are lists of prices which people have agreed to call proper for certain things, but the things themselves vary so much, according to the material and local circumstances, that what is right for one place is hardly so for another.

How do you measure a wall with a window in it?—If we were measuring a wall, we should take the whole size of it, we should afterwards deduct all the openings.

Are these your rules, or the rules of the trade?—I think, if I understand the question right, it is to ascertain if the same material is measured twice over.

And whether it is a distinct mode of measuring, or whether it is not open to perpetual squabble and cavil?—It is an exceedingly difficult subject to settle precise rules upon; that is one reason why a contract in gross is better, because a builder before going into it has an opportunity of judging of all these circumstances; when measured afterwards, every part of the building is liable to cavil and discussion.

Is there no mode of making a specification under a contract for prices so particular as to avoid these cavils?—I have seen many attempts, but they were never quite successful.

Is there no mode of defining the way in which the measurement should be taken so as to prevent cavilling?—Every building embracing such a variety of detail, that no one in London is master of it all, or could draw it out. I do not know any body competent to draw out a specification that would entirely avoid the difficulties alluded to.

Measuring depends as much upon the custom of the place as any thing else?—Yes.

So that, for instance, a London architect giving a plan at Bath, would find himself a good deal puzzled by their different calculations?—He would be very much puzzled, unless he had previously studied the local custom.

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Without knowing, for instance, all the Bath customs?—Yes.

There is an additional argument against that mode of contracting for prices, you conceive?—I do.

Could you, as a builder, undertake such a public work as the new Post-office?—Yes.

And execute it upon a contract in gross?—Yes, certainly.

You are building a new square, to be called Gordon's Square?—My brother is.

Is that contracted for in gross?—It is not contracted for at all, they are built upon speculation.

They run the chance of being able to dispose of them well afterwards?—Precisely.

In contracts in gross is it usual to insert provisions in case any alteration is deemed necessary in building?—Yes, invariably.

What is it?—That if any alteration be deemed necessary, the directions will be given for it by the employer or the architect, and that the value shall be ascertained afterwards, and added or deducted, as the case might be, without vitiating the contract.

Which provision obviates very many disadvantages that may result from alterations subsequent to a contract in gross?—Yes.

Do not you ascertain the rates of charge in that case?—Yes.

Do not you think that necessary for precision and certainty?—Yes.

Are not contracts in gross in general completed without alterations, made in that provision, being called into effect?—Yes, very often.

An architect of a building has not great difficulty in making such a specification as makes it unnecessary to have subsequent alterations?—It depends very much upon the will of the proprietor, as well of the architect's ability; there is no difficulty, unless the employer should himself suggest alterations.

Does it often occur, that omissions are afterwards discovered in the architect's specifications?—An architect of ability, and the London architects generally are such, would not have many omissions.

Jeffrey Wyatville, Esq. called in; and Examined.

Jeffrey Wyatville, Esq.

THE Committee are desirous of asking you your opinion with regard to the advantage of contracting for works in gross, or in the way the Office of Works contracts, by prices?—I have, in all that part of my life employed in business, been an enemy to contracting by gross, from having constantly heard that by such method many frauds are committed; I never contracted so but once in my lifetime, that was in a very slight degree; even for my own house I paid by prices, and had a regular clerk of the works, being perfectly conscious that was the best way.

In the very large work you are conducting at Windsor Castle, is that the mode you pursue?—Yes, in a similar way to the Office of Works; I proceeded in the Office of Works manner, by sending circulars round to a variety of people; that was before the Treasury Minute was made which brought the accounts into the Office of Works, as I wished. I found afterwards it was better, instead of getting lists of prices, to resort to the method of the Office of Works, and to ascertain how much less than the Office of Works quarterly prices, persons would do the work for; those prices are all regulated by the architects and people fully conversant, by ascertaining the prime cost and putting on a reasonable profit. I stated, that from the largeness of the work they should enter into the consideration of doing it at a much cheaper rate, the regular payment of the money having been voted by Parliament, so that there would be no risk on that point. In consequence of that, I think some of the trades, that would allow of it, deduct $7\frac{1}{2}$ per cent less than the Office of Works quarterly arranged prices, and the others, nearly all, 5 per cent, in consequence of such large quantities, which has reduced their profits to as little as they possibly could afford to do the work well for. I think if I had tried to procure less prices than these, by getting a competition among people who were not qualified, I should have had constant quarrels and bad work; I have now got as excellent work as can be done, and at as reasonable a price as the tradesmen can live by, I am sure.

Is not that mode of doing work very liable to cavilling and altercation when you come to measure?—No; they dispute sometimes about the manner of measuring, but in all the great works that is generally arranged in the first instance.

By written agreement?—Not always; sometimes it is written on the requisition for the prices, but it is generally entered into and understood. There was no

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great necessity for that, as the works are measured quarterly, and I always have it in my power, if the artificers will not comply with the Office of Works rules, to discontinue them; that is a very necessary thing to be so enabled in such a large work, for this very morning I have received the beginning of a calculation of the total amounts of the various materials consumed, by which it appears that we have used 207,000 cubic feet of Bath stone; the measurement of that, one way or other, would make a material difference.

Is it from a fear that you would have bad materials introduced which would not be seen, or from what other reasons do you object to contracts in gross?—From scantiness of materials, and from slighting by the workmen themselves; knowing it to be contract in gross, they would in nearly every case slight it, from that sort of feeling which every good servant has for his master's interest, I am perfectly convinced. On many parts that have been taken down at Windsor Castle and other places, I have exclaimed, "Evidently this was done by the piece," not having any mortar, or from other symptoms of bad workmanship within it.

Would not that be corrected by an active and intelligent clerk of the works being present at the laying of every stone?—I think it is almost impossible; I have heard workmen say, It will do very well, it is a contract; it is a common expression among the workmen when they know it is a contract, though they have no interest, except from a feeling that they must do it quick.

Why has not the workmen of the contractor for prices the same interest as if he were doing it in gross?—Because when it is known by the workmen that the master has a regular price, they are not so inclined to neglectful haste, not feeling a necessity to do so when they are aware a man is paid a liberal price; but when under contract by the lump, it is very natural for a man to say, I shall lose money by this, which induces a feeling on the part of a workman; and it is most likely he does lose if he contracts for it in the lump, he is therefore under the necessity of ruining himself or cheating his employer.

Does not that depend upon the price?—In the first instance it does.

In contracting for prices, is your contract under the prices generally paid, in private trade?—All the Office of Works prices are considerably under what you could get your work done for in the common private trade way; and it is very natural that it should be so, because the money is perfectly secure, and the tradesmen run no risk, they have regular payment and constant employment.

The contractor in gross runs no risk, does he?—He runs the risk of any loss; he would not have any loss made up to him by his contract; but in a contract for prices he could not lose upon every article, and he would constantly know the state of his affairs relating to it.

Have you the examination of the bills from Windsor Castle?—Not finally; they are all measured by an officer appointed by the Office of Works, to whom I render every necessary assistance.

Does measurement only ascertain the quantity, not the quality of the work?—No; but the measurer would not allow the price of good for work that was bad; measuring enables the employer and the workmen to know how the matter stands; suppose Windsor Castle were done in the lump, I should not have known at this moment, nor would it have been possible to tell, how the things stood; a man might have been ruined, or have run away, or extras must have been allowed to save him.

But you would have known what the ultimate cost would have been?—Yes, you might know; but the man would not know how much it might be exceeded; he would be ruined before he knew the amount of his loss.

Do you mean that the risk would come on the undertaker's shoulders instead of the Public, while in the other way it comes upon the Public, and not upon the undertakers?—He could not carry on the work to completion, if of great extent, but by measurement; the Public would sustain no loss, as only paying for work performed.

When you depreciate works done by the contract in gross, are you not talking of a contract by public tender, and not by having respectable contractors?—I am talking of a contract by public tender and for public works; there are very few people of respectability would prefer taking large contracts in the lump; I know that I never took such a thing.

Is it not much adopted by private individuals building new houses about the Metropolis?—Yes; the houses in London are so similar and common, that if a man makes a plan, and says he will do it for so much, the variation could not be very great or ruinous. I would have no hesitation in doing so for large works, if, after the estimate was made for the gross, the amount were to be nearly doubled for the

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contract, to secure me from the chance of loss by contingencies. Supposing the work came to a few thousand pounds more than you expected, the Public have the value for their money, and the artificers only a profit amongst them upon the few thousand pounds more. If one architect makes an estimate, and another contracts for it upon that estimate, it would be hard to make the tradesmen suffer for any error of that sort; but the contractor usually makes his own estimate.

Do you mean to state that the architect cannot make his specification so correct as to enable the contractor clearly to see his way as to the expense?—It is a difficult thing, for I have made many estimates in my life, but variations being generally necessary, I certainly have found, in the end, the works came to more money.

Are not all the public Churches built by contract in gross?—I believe they are; but fear that many disputes and some bad work have arisen. If any body left me a million of money, and I was to amuse myself with building a new house, to cost a hundred thousand pounds, I would not contract for it in the lump.

You would do it by contract for prices?—For prices.

You would only contract with an individual, and all others would work under him?—No, that is another way. There was a small thing I did for a gentleman in Grosvenor Square; he wished to contract, but I said, I am not a contractor, but I will make each tradesman in his own business contract for a sum; I added my own commission of 5 per cent upon it; I guaranteed that my friend, who was going abroad, should pay no more, and I insisted on my workmen not charging me more. Something was lost by each. That is the only contract I made which was like a contract in the lump; it was in the lump to my friend. That was not the case, however, of one man contracting for another; I did not undertake to do all the works, I only appointed and paid every man.

Is it not obviously the inconvenience of contracting with each of them separately, that the painter will interfere with the plumber, and the plumber with the painter, so that they would always be working at each other's inconvenience?—I never find that that is the case; in the country, where you employ various tradesmen without one director in authority, they generally stand still for each other's work, but that is not the case where there is a regular clerk of the works. If you ask the mason why he does not get on,—he is waiting for the carpenter; and if you ask the carpenter what he is doing,—he is waiting for the mason; but a clerk of the works provides against this, by taking care that one description of work is ready to follow another.

Is not measurement the great source of dispute and expense?—Tradesmen sometimes do quarrel about it, and want too much; men that are reasonable never dispute.

Do not they dispute as to the mode in which the measurement should be taken?—Yes, sometimes.

Do not these disputes constantly arise?—No, I think not; I have had very little of them.

Cannot you get rid of them by previous understanding?—Sometimes we do; it is very often done; in the Office of Works it is always understood how it should be measured.

Are there not various measuring customs in different places?—Yes; but in the country they are very glad to get the London measurers if they can, because the tradesmen suppose them more capable of making out regular accounts. One is anxious that a man should do it, that understands it, because then I am sure I am not cheated; if I send a man to the country to measure it, perhaps they get a little more in price on some articles, but the employers are not cheated in the quantities. The country tradesmen do not calculate generally at prime cost, they put down something, perhaps a shilling which costs sixpence, and sometimes sixpence when it should be a shilling.

Is not the measurement of a great building, like that of Windsor Castle, a great expense?—Yes, because it is a great expenditure, but not great in proportion; it takes the measurer and about two or three clerks to make out the accounts quarterly. He is appointed by the Office of Works; the Office of Works regulate his pay, and allow him for his clerks; it comes to about 113*l.* per quarter, on an average.

And there is the measurer on the other side?—No, they measure themselves, or by their clerks; this is the case with the tradespeople at Windsor.

Do all the tradesmen measure their own work?—Yes, as above stated.

Then

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Then the tradesmen are overlooked by the clerk of the works?—The Office of Works measure against them; they do not employ a measurer against the Office of Works' measurer, they take the dimensions and ascertain them, to get the right quantities.

The Office of Works pays that measurer?—They pay the measurer, and the time for which his clerks are employed.

Do they pay by per-centage, or a fixed sum?—No, they calculate the time employed; they allow him a certain sum, and for his clerks a certain sum; which is much cheaper than the common mode of charging for measurement in private trade.

Does not the contractor add any thing to his prices, on account of the labour in measuring?—No, he cannot do that, for the Office of Works price is settled; the price is made by the Office of Works, and not by me; they are formed by half a dozen persons belonging to the Office of Works; they get the prime cost from the different merchants, for the different timber, and lime, and stone, and brick, every quarter; these they investigate, and find out if there is any necessity for raising or lowering the price. They add a per-centage on these prices. The tradesman has an appeal from that price; they give him the opportunity when the bills are made out; then if he represents it will not pay according to the prices fixed, they allow him as much as will produce some profit.

Do you ever take into consideration the trouble or expense of the tradesmen, for the man who measures against the Surveyor of the Board of Works?—They generally measure themselves.

You allow them nothing?—No, not a farthing; his profits are supposed to pay him for all his trouble.

Do you ever find these persons dispute in the measurement of the Board of Works?—At the time the measure is taking, they very often dispute; if it is half an inch more or less, it is closely attended to; when they urge great repetitions of the work, whether a piece of timber will measure three inches and a quarter or three inches and a half, makes a difference in great numbers of the same, and allows of some dispute; and if it cannot be decided at the time, it is afterwards finally settled by the heads of the department.

The Board of Works proceed on a fixed principle, as to measurement?—Yes.

They always understand to allow or deduct for rises and variety in the surface?—Yes.

So that at the conclusion there is no difference upon that point?—When you get a new tradesman, perhaps he disputes, as the method may produce less money than the methods of private trade.

Does not that end by establishing the rule of the Board of Works?—Certainly, because they never give way.

The usual workmen do not dispute the principle of measurement?—No, never; if they do not like it, they are obliged to submit.

Are the measurements that are taken at Windsor, according to the custom of the Board of Works, or according to the custom of the town of Windsor?—According to the custom of the Board of Works, certainly.

Private individuals building at Windsor, would be ruled by the custom of Windsor?—Part of the men that do my work are Windsor people; they make, I suppose, more measurement in their own private works, than we allow them.

Are not the prices of the Board of Works higher sometimes than the prices at Windsor in private trade?—Seldom so high as any where in private trade.

How do they settle them?—The Office of the Board of Works generally, I believe, allow 15 per cent upon the prime cost, from which on payment two and a half per cent is deducted, which leaves such a profit as allows, when the bills are paid, twelve and a half per cent to the tradesman for his trouble, rent, taxes and use of his money. At Windsor five per cent or more is taken from the general calculation. I do not think it is possible for them to get more than just pays them fairly for good work. Contracting in the lump produces disputes.

Do you consider the mode practised by the Office of Works as being an economical mode for conducting public buildings?—I have always said so. I do not presume to give an opinion as to the number of officers of the establishment, but as to the method of it, I am perfectly convinced nothing can be better for the Public. I have often turned it in my mind; I am quite sure no body gets much under them; I know from experience; I succeeded my uncle, Mr. Samuel Wyat, in

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some of his appointments under the office, and held them for years. Some matters turned out well; but I, like every body in the Office of Works, was constantly talking of giving up my employment, because so little was gained; and I did give it up. Many people will work for the Office of Works, because it enables them to keep a certain number of men ready for something else. They always have something to do for the offices, if they have an appointment.

What check or control have you over the expense of the works now going on at Windsor?—I have two clerks of the works paid by Government, and two clerks at my own expense always there, and a constant observance of my own. I am there five days in the week out of seven, on an average; and I think I never walk round the Castle without finding fault, if there is any thing that costs 6*d.* more than it ought to do. I do not know how the expense could be kept down more than it is, considering its ruinous state.

That arises from your being able to give almost your whole undivided attention to that one subject?—Perhaps what I find fault with may amount to a trifle, after all; I only speak of small matters; in the great parts there can be no waste; I give them the precise drawings.

Are the clerks of the works, who are at Windsor, under your appointment, or that of the Board of Works?—Under mine; the clerks of the works keep the check upon the weekly accounts.

Are they your clerks of the works?—Yes; they keep the daily account and weekly notes which are kept in the office and delivered to the measurer. The accounts are made out in the office with the tradespeople, so that there is nothing like a secret.

Are they certified and examined by you, before they are returned to the Office of Works?—No, they are all kept in the office, and all made out and examined by the Office of Works before I certify the accounts. We have another way, which has not been practised commonly: With such a great number of men, perhaps 500, many of them working at measure, and many of them at day-work, which is a matter of necessity, we have tin tickets made for every master; the initials of every master's name is on every one; every one doing day-work had a ticket, which he delivered to the gate keeper regularly at every meal; my clerk of the works collected these tickets, and if a man's ticket was not there, he was not paid; if he did not keep his time to five minutes, he sent him back, and he lost a quarter of a day. That was a straightforward way, and we found no trouble in doing it.

Is that a mode you pursue in other works?—No; we do this, from the great number of persons, and to distinguish betwixt those men at their masters' measured work and those we have to pay by the day.

Is as much check and control used over expenses in the public works so conducted under the Office of Works, as it would be in building for any private individual?—I think more so; it is impossible for any body to do it more. I am speaking from the experience of forty years. I was with my uncle forty years ago, who held appointments under the office before I commenced business myself. When it came to me, I know, they never let me get much.

You have stated it is more economically done at Windsor than in a private trade undertaking; now you happen to have a beautiful work at Chatsworth, will you explain to the Committee why you are able to do it more economically than for a private individual, as at that place?—That is not a case in point; the proprietor finds all the materials, the stone is on his own estate, and he pays his own workmen, which can be done in a work of that sort. It is not worth while in an inferior concern to do it.

Will you explain to the Committee what enables you to perform the work more economically at Windsor, than if you were undertaking a similar work for an individual?—I could not get the prices so cheap for an individual; no man would enter into a contract for a small thing, for the same prices for which he would do a large one, with such good security and certainty of pay.

Perhaps you mean in consequence of the absolute certainty of receiving the money immediately?—Yes, there is no risk. I have done work for people ten years ago, and I have never had the money up to this time; now, if I had done it for the Office of Works, and had received but 5*l.* per cent, the accumulation of the money would have been something in my pocket.

Then the advantage of this is the greater extent of work, and more exactness of payment?—That is the reason why every body is desirous of getting something under

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under Government; if there is only a little gain, yet there is constancy of employment, and certainty of payment.

Could you suggest any measure by which the Public Buildings of the Metropolis could be given more generally to the profession at large, than by the present exclusive system of giving it to the three Architects of the Board of Works?—Why, except the Government offices, I think it is pretty well divided; there are nearly as many architects as there are buildings in the Metropolis to be conducted; industry, with genius, must always produce more employment or reward to one than another.

But the question refers to Government buildings?—Why, I do not know how that is to be done, unless more architects to do those buildings are appointed to the Board of Works. I am not attached to the Board of Works; I am employed as if by an individual.

Do you conceive it to be an injury to the profession at large, to limit the employment in public buildings to three architects exclusively?—No, I do not. If I were a young man, I would say to the contrary; but, on conviction, I do not, because they are stimulants for every young man to be industrious; like a young man in the law, who has floating on his imagination the idea of being made attorney general or lord chancellor, offices to which every lawyer may look, but only an industrious one should gain. I have deplored the neglect of my relation, which destroyed the Office of Works as it was; because a point of eminence was thereby done away for a professional man. I consider it is divided into three, and there is only one-third such extraordinary honour in being one of the attached Architects to the Office of Works, as if a man were made Surveyor General; not that I now wish for the situation, I would rather be at liberty. I did look up to it formerly; when, in my younger days, I found there was a Surveyor General of His Majesty's Works, and such a desirable thing as being Royal Academician, I set out with a view to succeed to both, if I could, and one is done away completely. As to professional men, I think it is not too much reward to the profession to retain the office of attached architects, if the situation is always given to people of experience; but if you are to make an attached architect of a young man, one who has it merely from interest, then, I think, the Public are not benefited. I would rather have 3*l.* per cent in London than 5*l.* per cent at Windsor, for I could do all my other works at home; a man may merely walk and make a pleasure in looking after his work in London.

Which should you prefer, for an advantage, to have 5*l.* per cent on the whole undertaking, being at the expense of the clerk of the works and measurers, or taking 3*l.* per cent, and leaving all that expense to the employer?—That is not so easily answered; that admits of calculation; I would rather not pay the clerk of the works, because I think it would be improper; I think he would be more independent, if I did not pay him. I never found the clerk of the works, in private concerns, considered himself so much my servant as the servant of my employer. I scarcely ever found myself at liberty to dismiss a clerk of the works, if he did not go on well, without first obtaining my employer's permission. Therefore, if you employ a clerk of the works, you would find him rather more your servant than mine, and an additional guard for your interest.

If the best plan for public buildings is advertised for, do you think the first rate architects, or those of the highest eminence, would tender theirs?—I should think not. If I may be considered as one of those, I would not; and my reason is this, I did so in my younger days, and in one instance found that the designs publicly approved, were set aside by interest.

When you gave your plan for the improvements at Windsor Castle, did you consider that you were acting by competition?—Yes; that I must say I did; but that is a fair thing for an exception, because I received, unsought for, the high honour of His Majesty's commands, to make designs. There have been 1,000 town halls to build, and churches, which I never had to do with.

Is it the custom for you to pay the clerk of the works out of your commission?—No, not at all; it goes regularly into the bill; I pay my own clerks I have at Windsor always regularly.

Not clerks of the works?—No, the Office of Works do not even allow the paper on which the clerk of the works writes his notes for necessary things, and of which he complains; I am going to pay that out of my own pocket; this shows how close the thing is done.

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Can you form any idea how much per cent the trouble of settling accounts, and all that sort of thing, deducts from the architect's trouble or profit?—No; as far as I can recollect now, the measurer is paid on an average 113*l.* per quarter, which is very little for himself and assistants.

Your receiving 5*l.* per cent for every thing, how much would you say was fairly your remuneration for the trouble of settling the accounts, taking the value as abstracted from making the designs and plans?—I think it rather difficult to come to a conclusion on that point, so much depends upon the ability and alacrity of the assistants and nature of the work.

You receive 5*l.* per cent for all the trouble of drawing plans and designs?—Yes, and giving all other necessary attendance and instructions.

In those works which you undertake for individuals, you do not pay the clerks of the works from your own commission?—No, nor the measurer; if I did, there would not be much left for me. I have been always paid my commission, and for my journeys, every where; but that is not so at Windsor Castle; I neither charge for extra drawings, or journeys; I thought it necessary I should work a little under price as well as other people.

Is it invariably the case for the architect to be paid a per-centage upon the money expended?—I have always considered it so; I have had it.

That is the general practice, both for individuals and the Public?—Why, something is left to a man's honour when it is so done; and he is bound to avoid every expense that would create an imputation of undue interest; if I were only paid for my drawings, I do not think it would become my duty to look so closely after the cost, or object to my employer's useless expenses; but I am honestly bound in honour to see that he does not pay a farthing more than he ought, when the amount of the commission depends upon it.

Do you consider it diminishes the trouble of an architect as much as half, by taking all the measuring and control of the accounts?—No, certainly not.

Are you correctly understood as saying, that your only objection to sending in plans where public competition is called for, is the want of remuneration for the trouble of preparing the plan?—No; perhaps it is extraordinary to say it, but one thinks interest carries it instead of the best design, and I have frequently heard such opinion urged; a man who has much else to do will not spend his time in such a chance. Windsor Castle is entitled to an exception, I allow; when I was making my design for Windsor Castle, I really had not the least feeling in the world that I should gain it; that is the honest truth; I thought every body employed would make quite as good designs as me, therefore I thought the interest was against me. That was the feeling, but it never entered into my contemplation to refuse such an honour.

Even with this experience, having succeeded in this instance, if there were advertisements for the best plans for any other public building, would you, or not, think it worth your while to send in a design?—No, certainly not upon public advertisement.

You think that architects in general would not?—I am perfectly sure no person in full employment would do that; there are some few instances perhaps to the contrary; one supposes there is private interest.

Do you consider, then, that the objection of architects against sending in plans, is the belief that the decision is to be obtained by favour, and not by fair judgment?—I have no doubt that is the general feeling; and an additional feeling may be, that such persons, having a certainty, will not run after a vision.

Do you not think that private persons contracting in gross are more liable to deception, than by the other mode of dealing?—No doubt of it, I have not the least hesitation in saying so.

You think that, upon the whole, that any fraud or deception is more easily covered by dealing in the gross than by dealing in the more detailed way?—I have not a doubt of it, and have heard the same opinions, from respectable persons, all my life in chance conversations. When a man knows he has a certain sum to pay or receive, he contracts to do it in the cheapest possible way he can, and he instructs his workmen to do the same; if he is to have a certain sum, which perhaps he discovers when partly through the work is not four-fifths of what he ought to have, then he resorts to every possible means; or, if a very honest contractor, agrees to put up with a loss. I believe there are instances of getting one man to

contract

contract for door grounds, or such rough matters, and there are the doors or shutters, &c. to follow by precise sums; these are again sub-let to more needy people, and so on. Surely this sort of trickery should not be pursued in public work. I come to this conclusion, that common London houses, like so many boxes in a row, may be built by contract in the gross, with little chance of ruin; but that public works ought to be conducted upon such fair terms that every tradesman should be certain of some gain, and the Public be sure of good and lasting work.

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Mr. *Henry Rowles*, further Examined.

HAVE you looked over the Treasury Instructions for the regulation of the Office of Works; and what observations occur to you upon them?—I have read with attention the book of Treasury Instructions for the Office of Works, which was put into my hands when I before attended this Committee, and was ordered to attend again this day to be examined relative to those Instructions. I hope I may be allowed, previously to my examination, to say, that as I am personally known to and entertain the highest respect for several of the gentlemen holding situations in that department, in any answers I may give, I hope to be considered as not speaking in any way as regarding them or any other gentlemen holding office, but as applying my observations to the Office itself, as regards its necessity, its duties, and the qualifications required to be efficient for the public service.

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What observation have you to make on the Surveyor General's Office?—The Surveyor General's is an office of absolute necessity; but I conceive the head of any office should bear the responsibility of his department. On reading the Instructions through, I observe that the Surveyor General has none of the important responsibility of his office put upon him; if any work is under consideration, he receives instructions from the Treasury, upon which he is to consult and report the opinion of those under him; if it be ordered to be executed, he is to consult others, and abide by their judgment as to the proper amount to be paid, without its being necessary that he should be himself qualified to judge or decide on so material a point; when it is to be paid for, the money is to be issued to his under officer, and that officer is to pay it away and to be accountable; thereby leaving the office of Surveyor General, from the beginning to the end, nothing but a registry of the deeds of others, a mere channel of communication; the office, in short, as constituted by the Treasury Instructions, may be executed by any body.

What observations have you to make with regard to the office of Assistant Surveyor?—It has nearly all the most essential duties of the office thrown upon it; it has in addition thereto, as cashier, the responsibility of a public accountant.

With regard to the attached Architects, what is your opinion?—The attached Architects would be perfectly unnecessary if the other offices were properly efficient; the Surveyor General, with his clerks of the works and labourers in trust, should be fully competent for the entire direction of the repairs of the Public Edifices, and, generally, the trivial and unimportant additions thereto, and for the control of all expenses incident to such work. The conditions on which the three Architects are attached, appear to me to be, that the Public Edifices are divided into three disinct lists, and each architect has the exclusive privilege of being appointed to any new buildings in his division. He is paid a salary and a commission of three per cent, and has the responsibility of the amount of expenditure taken from him by the Board, and all expenses of making up accounts; and the clerks of the works are also paid by the Office of Works. Those, combined, amount to a larger compensation for his labour than the highest sum given to any architect; and this arrangement admits of no new special agreement where the works may be extremely dissimilar; an edifice with much decoration costs an architect, in drawings and in his own labour, much more than a uniform plain building. It would be, at a like commission, much more profitable to build a prison than a palace. Also the mode adopted for settling the account materially affects the architect's expenses; if a building be executed for a gross sum, he has no expense of measuring, which becomes necessary when contract for prices is the mode of settlement adopted. I do not discover any advantage Government gains from such appointment, in return for the exclusive privilege and preference given to those officers, while the Lords of the Treasury are bound to employ them to the exclusion of any rising talent that may show itself, and indeed to the exclusion

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of the talent of the remainder of the profession. I give my opinion with great deference to many that the Committee must possess, from the evidence of those much more able to judge than myself; and I hope I may be allowed to say, could I think such offices necessary, I should add my humble testimony, that the gentlemen who now fill those offices are the most able in their profession, from the high rank they bear in it, and their well-known taste, talent and experience.

With regard to the Clerks of Works, what observations have you to make?—The clerks of the works, so named at the Office of Works, from the qualifications required and the duties put upon them, must be persons of much higher consideration than those generally so named in other public establishments and private works. Government require in those offices all the information of an architect, and such professional gentlemen used formerly to hold those offices, and it was not derogatory to them to do so; but attached Architects have lessened the rank of those offices, and consequently persons with the qualifications required, are not so solicitous to fill them. In other public establishments and private business, a clerk of the works is a very different person; the qualification required assimilates more to what in the Office of Works' establishment is now called a labourer in trust; that is, a practical person, a foreman of workmen, capable from his experience of making out working drawings, setting out the works for the men in the building, and to be at all times present at them, to look at the correct execution and sound work, both as to the labour and the goodness of the materials.

Are there any observations you would wish to add?—The Regulations comprise the authorities under which the Office is created, and many sound directions for keeping all officers honest and attentive, about which two opinions cannot exist. But the instructions with respect to getting at prices are clumsy, and leave no individual responsible; and the practice is even more clumsy than the instructions; and no part of the regulation takes any notice of the Exchequer fees, which add two and a half per cent unnecessary charge to all buildings liable to such deductions, which in fairness is no part of the expense of the works; such fees should, if possible, be abolished; if there be good reason why they cannot, then the Cashier should collect the amount of them, and state them separately as such, and pay them from the funds provided by the Treasury, without reference to the tradesman or making it any deduction from his bill; that is the present practice, and swells his account unjustly, and is a deception as to the cost. The present practice is, I believe, that the Board endeavours to get at the prime cost of all articles, which is a very difficult point to attain; and they then proceed in this way: They take the prime cost; supposing them to have attained the prime cost, let us call it 100*l.*; they add a computed profit of, I believe, fifteen per cent, that would make together 115*l.* The Board then calls on the tradesman to work five per cent under the price, which, added to the Exchequer fees of two and a half per cent, amounts to seven and a half per cent altogether. Now seven and a half per cent on 115*l.* makes 8*l.* 12*s.* 6*d.* and that subtracted from 115*l.* leaves 106*l.* 7*s.* 6*d.*; of which 100*l.* was the prime cost, and 6*l.* 7. 6*d.* the nominal profit, which no man could afford to work for, the use of his capital, his premises, his clerks, and his own time considered. Therefore, as the Public Works are done on these terms, there must be other advantages, which are not apparent. This example shows why I said the manner of settling prices is very clumsy and confused; and it is capable of being simplified by settling a fair price at starting, and not leaving it subject to deductions.

Jovis, 8° die Maii, 1828.

The Right Hon. *Charles Arbuthnot*, a Member of the Committee; Examined.

Right Hon. *Charles Arbuthnot.*

8 May 1828.

WILL Mr. Arbuthnot be so good as to state to the Committee the money that has been issued from the Land Revenue on account of the Regent Street?—I have it here; I have in my hands a Memorandum of the amount of Mr. Nash's original estimate for forming a communication between Pall Mall and Portland Place, in the present line of Regent Street, and of the ultimate cost of that improvement.

[Mr. Arbuthnot *delivered in a Paper, which was read, as follows:*]

THE ESTIMATE of Mr. Nash, for making a new Street in the direction above-mentioned, submitted to the Board, in his Letter of the 8th March 1813, and sanctioned by the Treasury Minute of the 15th of the following month, amounted to (net) - - - - - - - - - - - - £. 330,754 1 1

For making a new Sewer - - - - - - 54,000 - -

£. 384,754 1 1

It is necessary to observe, however, that the Plan which formed the basis of this Estimate was subsequently departed from in various instances, at the suggestion, or with the sanction, of the Treasury.

The ultimate COST may be stated as follows; *viz.*

	£.	s.	d.
Purchases of freehold and leasehold property, compensation for goodwill of occupiers, &c. - - - - - -	1,102,183	10	5
Gratuities to Tenants at will - - - - - -	4,523	-	4
Payments for partial injuries - - - - - -	10,436	5	8
Payment to Lessees rebuilding at their own expense - -	7,393	13	-
Payment as consideration for exchanges - - - -	2,656	-	-
Architects', Surveyors', and Solicitors' bills - - - -	70,342	-	6
Rents of leasehold properties purchased - - - -	26,970	3	11
Payments to Builders - - - - - - -	41,078	12	1
Payment to persons for taking care of untenanted houses -	585	11	5
Purchase of additional ground-rents - - - - -	27,598	8	-
Insurances - - - - - - - - -	466	4	9
Land and parochial taxes, water-rates, sewer-rates, &c. -	35,903	6	9
Paving, lighting, watering, cleansing, &c. - - - -	37,384	10	11
Salaries - - - - - - - - - -	12,425	10	7
Office-rent and incidents, including repairs - - - -	4,577	6	7
Treasury, Parliamentary, and Auditor's fees - - -	4,358	1	-
Miscellaneous payments - - - - - - -	19,165	6	2
	1,408,447	12	1
Interest on monies borrowed - - £. 239,876 17 10			
Deduct, Rents derived from the New Street; dividends of stock; profit on sale of Exchequer bills; and sale of old materials - - - - - - 173,354 18 10			
	66,521	19	-
The Regent's Park Sewer, and other Sewers communicating therewith, not included in Mr. Nash's original Estimate -	60,719	5	3
Net amount of ultimate Cost - - - £.	1,535,688	16	4

N. B.—IN the Commissioners' Fifth Triennial Report, which was dated May 6th, 1826, the Expenditure was stated at £. 1,533,582. 16. 10.; but between that date and the 5th of July in the same year, when the Account was finally closed, additional payments were made to the amount of £. 2,105. 19. 6. making the sum of £. 1,535,688. 16. 4. above stated.

Will Mr. Arbuthnot have the goodness to inform the Committee whether he has any Account as to the profits which are to be set against these expenses?—The rents arising from the New Street amount to about 40,000 *l.* to which there will be rather an increase than the reverse. The sewer rates of the New Street, and from the Regent's Park, amount to more than 2,600 *l.* But in considering the

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profits, it is fair to state that the sewer rates are levied, and applied, conjointly with the rates for paving, lighting, and watering, and that the produce of the whole is at present absorbed in current expenses. To the above sum of 40,000*l.* arising from rents, must be added 830*l.* as the estimated annual value of land granted in fee for public purposes, under provisions of the Acts 52d Geo. 3, c. 161, and 56th Geo. 3, c. 128.

Has the whole expense of that been paid?— Every shilling of it has been paid.

And there is no debt remaining?—None.

Can you distinguish the rents which were payable to the Crown before, out of the same ground?—I have not the account here, but I could obtain it. I would explain to the Committee, that the greatest proportion of the street has been bought property; there was some property of the Crown on the site of that street, but an inconsiderable proportion as compared with the whole.

By what means has the money been raised for the payment of those expenses?—The money has been raised, partly from the current Land Revenue, and partly by loans from the Consolidated Fund to the Land Revenue; and also partly by money that was borrowed of the Bank, and of the Royal Exchange Insurance Company.

Is not the Land Revenue mortgaged at this moment for that?—The whole that had been borrowed from the Bank and from the Insurance Company is paid back. But I ought here to observe, that the sum which, to complete the payment of the whole, was advanced by the Treasury from the Consolidated Fund, so far remains a burthen upon the Land Revenue, that in case, at the commencement of a new reign, the Sovereign should take his hereditary revenue, instead of a fixed income by a Civil List arrangement, similar to that of His present Majesty, the land revenue belonging to the Crown would be charged with the money that had been advanced from the Consolidated Fund.

To what amount does that advance from the Consolidated Fund go?—In 1820 and 1821 two sums of 100,000*l.* each were advanced upon vote during the progress of the work; and in 1824, 400,000*l.* (under the Act of 5th Geo. 4, c. 48, sec. 4,) was advanced, to enable the Office of Woods to repay the money borrowed of the Bank and of the Insurance Company.

The rest of the cost has been repaid?—Entirely repaid.

Has any interest been paid upon this sum?—No, none.

So that it is only an incumbrance in the case you have mentioned?—Exactly so.

In what way was that transaction managed?—By sales of estates of the Crown, and by sales of quit-rents, the Land Revenue department had been enabled to place 87,907*l.* 15*s.* 2*d.* in the three per cent reduced, and 81,052*l.* 11*s.* 11*d.* in the three per cent consols; these were the sums possessed by the department, in addition to its current revenue, at the time that it was thought advisable that the two sums of money, 300,000*l.* borrowed of the Bank and the 300,000*l.* borrowed of the Insurance Company, should be paid off; and it was thought advisable, because those sums having been borrowed at 5*l.* per cent, a saving could be made in the rate of interest, there being at the time of the intended repayment a general fall of interest upon money throughout the country. An order therefore was issued by the Treasury to the Land Revenue department, directing that the whole debt to the Bank and to the Insurance Company should be paid off; that the Land Revenue (under 5 Geo. 4. c. 48, s. 1.) should apply, as far as they would go, the sums standing in the name of the Land Revenue department in the three per cents; that upon the sale of this stock, whatever money might be wanting to make up 200,000*l.* of the whole sum of 600,000*l.* should be supplied out of the current revenue of the department, and that the remainder should be advanced out of the Consolidated Fund under the conditions above stated.

What were the principal causes of the great excess in the actual expense of Regent Street over and above the original estimate?—I speak rather more from hearsay than by actual knowledge, for it occurred many years before I belonged to the department; but I have understood that a very great additional expense was caused by the good-will of trade, being to an enormously larger amount than had been contemplated; and indeed there were many cases where very great sums were asked for "good-will," and which being carried before juries, they awarded a vast deal more than it had been possible to imagine they were likely to award. And in addition I ought to state, that according to the paper I have given in, it is observed that the original plan was greatly altered by order of the Treasury, before the work was undertaken. I may say, from what I have been told, that the whole

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whole plan was entirely remodelled, so that the original estimate could be no criterion for the ultimate expense.

Was the original estimate of Regent Street given in by Mr. Nash?—The original estimate of Regent Street was given by Mr. Nash. Perhaps the Committee might wish me to inform them how it happened that Mr. Nash was employed: I have understood by inquiry, that when that bridge which is about the middle of what is called the King's Drive, or Rotten Row, had been widened, Lord Robert Spencer, being then at the head of the Woods and Forests department, was dissatisfied with the gentleman who had been professionally employed in the alterations of the bridge, and he called in Mr. Nash to give him his opinion as to the workmanship, and also the expense of the undertaking. Lord Robert was so much pleased with Mr. Nash, that, under the sanction of the Treasury, he caused him to be attached to the department. When the great undertaking of Regent Street was first contemplated, various plans were given in by the persons who were the Architects belonging officially to the two departments (as they then existed) of the Land Revenue and the Office of Woods; these plans did not give satisfaction; Mr. Nash was then desired to give a plan and estimates, and his plan (after numberless alterations) was sanctioned, and was the one which was afterwards acted upon. I think this may be the proper time for informing the Committee how Mr. Nash has been remunerated for his professional services, as the architect in planning the New Street and laying out the Regent's Park, and in conducting the improvements now in progress in the Strand and its immediate neighbourhood. With the permission of the Committee I will give in this Memorandum, detailing the whole.

[Mr. Arbuthnot *delivered in a Paper, which was read, as follows:*]

MEMORANDUM of the remuneration made to Mr. Nash, for his services as Architect in forming the *New Street* from Pall Mall to Portland Place; in laying out *the Regent's Park*; and in planning and conducting the *Improvements* now in progress *in the Strand*, and *its immediate neighbourhood.*

THE following is an Extract of the Treasury Minute of the 14th of December 1813, under which Mr. Nash was paid for his professional services in the New Street.

Mr. Wharton lays before the Board a Memorandum of the substance of an arrangement, which he had prepared, subject to their Lordships' approbation, and which Mr. Nash had assented to, relative to the commission, &c. to be allowed and paid to him for the superintendence of the business connected with the New Street; and which Memorandum is in the following terms, viz.

I.—If the sewer shall cost 50,000*l.* or upwards, then Mr. Nash to receive 2,500*l.*, being equivalent to 5 per cent on 50,000*l.*, and no more.

If it shall cost less than 50,000*l.* but more than 45,000*l.* Mr. Nash still to receive only 5 per cent on the actual expenditure.

If a sum above 40,000*l.* but not exceeding 45,000*l.* then 5¼ on the actual expenditure.

If 40,000*l.* or under, but exceeding 35,000*l.* then 5½ per cent thereon.

If 35,000*l.* or under, but exceeding 30,000*l.* then 5¾ per cent thereon; and if 30,000*l.* or under, but exceeding 25,000*l.* then 6 per cent thereon.

II.—For all money expended in matters which yield no return in the shape of rent, such as rails, lodges, columns, public buildings, pavements, sewers, enclosures, houses or other buildings, which, in consequence of any special agreement with individuals, are to be built by or at the expense of Government, without reserving a present rent for the same, 5 (say five) per cent on the sum expended. And in all cases where Mr. Nash hath been or shall be called upon to make plans, designs and estimates of such lodges, columns, public buildings, pavements, sewers, enclosures, houses and other buildings as aforesaid, previously to their being carried into execution, 1½ (say one and half) per cent to be paid on the amount of such estimates, for his trouble therein. And in the event of such lodges, columns, public buildings, pavements, sewers, enclosures, houses or other buildings, being afterwards carried into execution, the amount paid for making such plans, designs and estimates, to be deducted from the said commission of 5 (say five) per cent on the sums expended. For which commission it is to be understood that Mr. Nash is—

1st. To make the original plan and designs when necessary.

2d. To make the estimate.

3d. To make all the contracts with the workmen.

4th. To superintend the works throughout, and see that they are properly executed; and finally to do all such matters and things as, according to usage and custom, it may be the duty of an architect to do in like cases.

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III.—For all matters which Mr. Nash shall have been or shall be directed to value, with a view either to the purchase of them by the Commissioners (whether the same may be actually purchased or not) or with a view to the sale of them as old materials, or otherwise, a commission of ½ (say an half) per cent; which commission is to be calculated on the following principle, viz.

1st. On the supposition that the matters valued by Mr. Nash are afterwards purchased by the Commissioners.

In this case the amount of the commission is to be calculated on the amount of the sum actually expended in the purchase, provided such sum shall not exceed Mr. Nash's valuation; but if it shall exceed such valuation, then the said commission is only to be paid on the amount of the valuation.

2d. On the supposition that the matters which have been or may be valued by Mr. Nash, are not afterwards purchased by the Commissioners.

In this case the said commission of ½ (say an half) per cent is to be calculated upon the amount of the valuation.

IV.—For all matters purchased, if the same shall be sold again, whether as old materials or otherwise, then (in addition to the ½ per cent, under Article III. for the valuation thereof) a commission of 1¼ (say one and a quarter) per cent on the proceeds of such sale, in case the same shall not exceed by more than 10*l.* per cent the amount of Mr. Nash's re-valuation for the purpose of sale; but if the actual proceeds shall exceed the amount of such re-valuation by more than 10*l.* per cent, then Mr. Nash is to receive an additional ¼ (say one quarter) per cent on the whole amount of such actual proceeds in respect of every 10 per cent by which the same shall exceed such re-valuation; for instance, supposing the re-valuation for sale to be 1,000*l.* and the proceeds of the sale to be 1,150*l.* he is to have 1¼+¼=½ per cent on 1,150*l.*

If the proceeds of the sale should be 1,275*l.* then Mr. Nash would have to receive 1¼+½=1¾ per cent on 1,275*l.* and so on, an additional ¼ per cent on the whole proceeds for every additional exceeding which shall amount to a full and complete 10 per cent on the original re-valuation for sale.

For this commission under Article IV. Mr. Nash is to measure and re-value for sale, to treat with the purchaser, to make all necessary arrangements, and to re-sell by private contract.

V.—Mr. Nash to receive 1,000*l.* for his plans of the Street, attendance and trouble about the Sewer, &c. which is intended to cover every thing done by him up to the present time, except what is specially provided for and adverted to in other articles.

For the letting of the ground in the line of the New Street to builders, and superintending the building thereon, and for the letting of any houses and buildings now being in the line of the New Street on repairing leases, and superintending the repairs thereof, whether such ground and houses or buildings be purchased by the Commissioners under the powers of the Act, or be part of the old estate of the Crown, Mr. Nash is to receive half a year's ground-rent as a fee, for advising on the lease and overlooking the whole proceeding, for which fee Mr. Nash is to negotiate the original purchase.

1st. To measure and value the ground.

2d. To prepare the design for the buildings.

3d. To negotiate with the builder.

4th. To superintend the repair of all such houses or buildings; and,

5th. To give his opinion on the covenants proposed to be inserted in the lease. Such fee to be paid to Mr. Nash as soon as the lease is signed. And in case Mr. Nash should die, after having executed all the business connected with any letting, up to the signing of the agreement (which will involve the whole of his duty, except the superintendence of the architectural execution of the masonry) his executors in such case to receive three-fourths of such fee; the remaining one-fourth to be reserved to compensate the architect who may be employed in superintending the conclusion of the work.

It is added,—Mr. Wharton also states, that it was understood that the terms of this arrangement, as far as they are applicable, should be extended to the Works, &c. *in the Regent's Park* under the *superintendence of Mr. Nash.*

Has Mr. Arbuthnot any observation to make upon this part of the Memorandum?—Mr. Nash stated in his evidence, that he received a premium; but in point of fact he did not, for there was no competition. I at the time thought he was mistaken; he did receive 1,000*l.* for his Plans, but it was in payment and as a reward for them, and was not a premium.

[*The rest of the document was read, as follows:*]

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Under the authority of the above Minute, Mr. Nash was paid out of the New Street Fund:—

For his Plans of the New Street and the Regent's Park -	£. 1,000	–	–
Upon his Estimate for the Regent's Park Sewer - -	2,500	–	–
Commission of ten shillings per cent upon the amount of his Estimates (619,387*l.*) - - - - - - - -	3,096	18	8
Commission of ten shillings per cent upon valuation of old materials (156,860*l.*) - - - - - - - -	784	6	–
And under the various other heads referred to in the Minute	23,218	14	7
Making the whole Amount paid out of the New Street Fund, under the Act 53 Geo. 3, c. 121 - -	£. 30,599	19	3

The amount paid to Mr. Nash for professional services in the Regent's Park, from the commencement of the improvements in that quarter up to the present time, is, £. 11,182. 8*s.*

Upon the passing of the Act 7 Geo. 4, c. 77, for making the improvements now in progress in the Strand, and its immediate neighbourhood, the subject of Mr. Nash's remuneration was again brought under the consideration of the Treasury; and it was directed by their Lordships' Warrant of the 24th July 1827, that the Treasury Minute of the 14th December 1813, should still form the basis of his remuneration for professional services under the new Act.

Under the authority of the above Warrant, Mr. Nash has been paid for his Plan of the above Improvements, and of others connected therewith, but which have not yet received the sanction of the Legislature - - - -	£. 750	–	–
And a Commission of ten shillings per cent upon the amount of his Estimates (748,792*l.* 12*s.* 1*d.*) - - - -	3,743	19	4
Making the whole Amount paid to him up to the present time, under the Act 7 Geo. 4, c. 77	£. 4,293	19	4

Do you conceive that Government would have ever undertaken the New Street, if they had conceived it would have come to four times the estimate of Mr. Nash?—It would be a difficult question for me to answer, for I had taken no part upon the subject of the New Street; Mr. Wharton, Secretary of the Treasury, arranged the whole with Lord Glenbervie.

The Committee are to understand, that Mr. Arbuthnot is not aware of the circumstances sufficiently to be able to judge if Mr. Nash's estimate ought to have been more near to the actual cost, or whether the circumstances were such as led to that difference?—I have given, in a former part of my evidence, some reasons why the undertaking was far more expensive than had been originally expected. I am not aware of any other cause, at present; but I can make inquiries of those who had knowledge of the subject while it was going on, and I will endeavour to inform the Committee at its next meeting.

Was the Elevation of the New Street laid before the Commissioners of Woods and Forests before it was undertaken?—All plans of elevations, for all buildings upon Crown lands, are submitted to the Office of Woods before any buildings can be erected; they are submitted, and before being executed they must be approved. It perpetually happens that plans of elevations are submitted to our Board, which are not approved, or are greatly altered, or rejected altogether. Perhaps here it might be right to say, that with regard to the whole line of the New Street, the mode pursued was this: Mr. Nash being the person who had the superintendence of the whole, he gave his own plans for such buildings as he meant to erect, and the Board, after examining them, sanctioned those plans. All other architects, or all other builders, who took ground with the intention of erecting buildings thereon, were under the necessity of submitting their plans to the Office of Woods, and from thence they were sent to Mr. Nash, to get his opinion upon them before they were sanctioned.

WHAT is the cause of the excess beyond the estimate, in the completing of Regent Street and the Regent's Park?—I have before given to the Committee several reasons why the ultimate expense attending the New Street was greater than Mr. Nash's estimate. Those reasons chiefly were, that the original plan given in by Mr. Nash had been so entirely departed from, that the plan which was ultimately sanctioned might be called entirely a new one; and that

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the good-will of trade had very greatly exceeded what Mr. Nash had originally expected it would be. Indeed I may here state, that it having been, as I have understood, imagined that, generally speaking, the sum to be paid for good-will would amount to about two years rent, it seldom happened that less than five or six years rent was demanded. I do not believe that any other causes can be assigned for the immense difference between the estimate and the ultimate expenditure. But perhaps it may be satisfactory to the Committee, if I here state what has been the whole expenditure of the Regent Street, and the whole expenditure of the Regent's Park, on the one hand, and what have been the profits from both, on the other. The Regent Street, including the Sewer (60,000*l.*) will have cost in the whole 1,533,000*l.* I do not take the fractional sums. The return for which, in rents, is 42,600*l.* The expense of the Regent's Park (not yet repaid by rents received) is 70,000*l.* The return for which, in rents, is 15,000*l.* a year. The two sums together, for the New Street and Regent's Park, make an expenditure of 1,603,000*l.*; and the rental derived from the two amount to 57,600*l.* From this rental must be deducted 2,384*l.*; such being the loss which the Crown sustained in the rental of houses taken for the purposes of the New Street, from its own estate. And in order to be quite correct, it will be likewise necessary to deduct the rates, amounting to 2,600*l.*, paid to the Crown for the Sewer; for these rates being wholly absorbed by the expenses for paving, lighting and watering, they cannot be considered as profit to the Crown. For the same reason, I omit the rent of the grass land in the Regent's Park, amounting to 1,200*l.*; for this sum is applied to the care and management of the Park. If, therefore, the sum of 2,384*l.* (stated above to be the Crown's loss of rental, by the sacrifice of houses in the formation of the Street) be deducted; and if, for the reasons given, the other sum of 2,600*l.*, the Sewer rates, be also deducted, we shall find that the clear profit in rental of 52,616*l.* is to be set against the total expenditure, as recited before, of 1,603,000*l.* I need not remind the Committee, that on the one side I have now taken the whole clear rental both for the Street and for the Park, and that on the other, I have taken the expenditure incurred, from first to last, for both. But I have a Memorandum detailing all the circumstances relating to it; and with the permission of the Committee, I will give it in.

[*The same was read, as follows:*]

"Of the houses taken for the purpose of making Regent Street, and the various improvements connected therewith, the number standing on the Crown estate, was 446.

The total amount of the rents payable during the current term of leases granted of those houses, by the Crown, was - - - - - - - £.2,384. 8. 11.

From the above statement it is evident that there was a sacrifice on the part of the Crown, of so much of its then actual rental for the purposes of that improvement. When it is considered, however, as was observed by Mr. Nash, after surveying the property, "that it "consisted principally of old houses, laid out in narrow streets, the greater part not worth "repair, and many of them in ruins;" coupled with the fact, that the improvement was to lead through a very fine portion of the Crown's property, both East and West of the intended line, it may very safely be asserted, that the buying up, by the Crown, of a part of its own leasehold, and the temporary extinguishment of a part of its own rental, was no more than any judicious landlord might think it expedient to do, with a view to raise the value of other and better portions of his estate. It is impossible to look at Cockspur Street, the Haymarket, and the various communications from the Haymarket into St. James's Street, more especially in the lines of Charles Street and Jermyn Street (to say nothing of the improvement both in and immediately northwards of Piccadilly) without perceiving that as all these improvements are in the very centre of the property of the Crown, a value has been conferred by the New Street upon that property, infinitely beyond the amount of any sacrifice that could have been made in regard to the small and comparatively worthless portion referred to in the above statement."

With regard also to the expenditure and receipt of the Regent's Park, I have a Memorandum which will so fully explain the whole to the Committee, that this also I will, with the permission of the Committee, give in.

[*The same was read, as follows:*]

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"THE REGENT'S PARK:—Expenditure and Receipt.

	£.
The Expenditure upon the Regent's Park, up to the close of the year 1827, was	120,000
The Receipts up to the same date, from rents of houses, grass and nursery rents, &c. about	50,000
Leaving a present surplus of expenditure over receipt, on account of this improvement, of	£. 70,000
The present amount of rent reserved, or to be reserved in leases of houses on this estate, is about	14,000
To which there will probably be an addition, when the leases of the whole estate are granted, of about	1,000
Making the present and probable produce of the house estate in the Regent's Park, per annum	£. 15,000
The grass and nursery rents, amount in the whole to about, per annum	£. 1,200

And as these, with the rates, are considered sufficient for the future maintenance of the roads, fences and plantations, the above sum of 15,000 *l.* per annum will, after the lapse of a few years, during which it may be considered as applied to the reduction of the above sum of 70,000 *l.*, be so much clear gain to the Public."

Was any estimate given in by Mr. Nash, with regard to the buildings to be erected on the site of Carlton House?—Mr. Nash gave in estimates of what, upon his calculations, would be the profits to arise from building on the site of Carlton House, on the site of Marlborough House, and also on the South side of the Park, in the line of the Birdcage Walk. No progress has been made in those works, except as far as regards the site of Carlton House; and it would be impossible to proceed with that part of the plan which regards Marlborough House, because for several years to come the lease of that house will not have expired; and indeed (although I am not certain that any thing has been determined upon the subject) I have reason to think that the part of the plan which regards Marlborough House will be given up. According to what I have stated, no part of Mr. Nash's plan has been acted upon, except as far as relates to the site of Carlton House. It may in the present instance be right that I should confine my statement to the amount of the rents expected by Mr. Nash to arise from letting the sites of Carlton House, and of some quite adjacent houses in Pall Mall; and supposing that those rents were wholly commuted for fines, that I should inform the Committee what the sum of money would be arising from the sale of them. By a paper which I have in my hand, and which, with the permission of the Committee, I will give in, it appears that the site of Carlton House and Garden, and of the houses in Pall Mall, would produce in rents, 8,065 *l.*; and as the expenses of this improvement are calculated at 32,270 *l.* a deduction must be made for interest upon this sum, which, at 5 per cent, amounts to 1,613 *l.* leaving the net annual amount of the rents, 6,452 *l.* Mr. Nash estimated, that supposing these rents, amounting as I have stated to 6,452 *l.* were sold at twenty years purchase, the sum to be derived from the sale would amount to 129,040 *l.* I have, as yet, confined my observations (with regard to the expected profits from the undertaking) to that portion of the improvements which is connected with Carlton House; but it may be now necessary to inform the Committee what were Mr. Nash's expectations of profit, provided *the whole* of his plans were carried into execution: Supposing that the site of Marlborough House and Garden should, according to the original plan, be built upon, Mr. Nash expected that the net annual rents, after making a deduction for the contingent expenses, would amount to 2,824 *l.* and this rental, at twenty years purchase, would produce 56,480 *l.* The next part of Mr. Nash's plan to be observed upon, relates to the site of St. James's Palace; it was not, as I understood, Mr. Nash's intention to pull down St. James's Palace, but to add Wings to it. Supposing that this part of the plan should be adopted, Mr. Nash would expect to obtain a net annual rental of 3,192 *l.* which, being converted by a sale of rents into present money, would, at twenty years purchase, produce 63,840 *l.* The remaining part of Mr. Nash's plan refers to houses to be built on the South side of St. James's Park, in the line of the Birdcage Walk, and the net rental which he expected to derive from the erection of such buildings would amount, in his opinion, to 3,751 *l.* making in present money,

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money, upon a sale at twenty years purchase, the sum of 75,020*l.* The whole of the net rents from the different plans which I have detailed to the Committee, would amount, by casting them up together, to the sum of 16,219*l.*; and the sum expected to arise from the sale of the whole of those net rents would, according to the same calculation, amount to the sum of 324,380*l.* Having made this statement to the Committee, I will now, with their pleasure, give in a Memorandum, detailing the whole.

[*The same was read, as follows:*]

ABSTRACT of Mr. Nash's Estimates of the Rents to arise from letting on Building Leases the Site of Carlton House and Garden, sundry Sites of Houses in Pall Mall out of lease or about to expire, the Site of Marlborough House and Garden, the Site of St. James's Palace, and Sites for Houses on the South side of St. James's Park.

	GROSS ANNUAL RENTS.	NET ANNUAL RENTS.	VALUE OF NET ANNUAL RENTS if Sold.
	£. s. d.	£. s. d.	£. s. d.
Site of Carlton House and Garden, and in Pall Mall	7,865 12 –		
Add for Value £.4,000 of *old materials*, after defraying expense of taking down	200 – –		
	8,065 12 –		
A. Deduct for Interest upon Expenses (£. 32,270) contingent upon this improvement	1,613 10 –		
		6,452 2 –	
Value of £. 6,452. 2. at 20 years purchase			129,040 – –
Site of Marlborough House and Garden	2,887 10 –		
Deduct for Interest upon Expenses (£. 1,260) exclusive of old materials	63 – –		
		2,824 10 –	
Value of £. 2,824 at 20 years purchase			56,480 – –
Site of St. James's Palace		3,192 – –	
Value of £. 3,192 at 20 years purchase (*N. B.* Old materials equal to expenses.)			63,840 – –
Sites for Houses on the South side of St. James's Park	4,714 – –		
Deduct for Interest upon Expenses (£. 19,253)	962 13 –		
		3,751 7 –	
Value of £. 3,751 at 20 years purchase			75,020 – –
Expected Net Rents £.		16,219 19 –	
Expected Sum arising from Sale of Net Rents £.			324,380 – –

A.

The amount of Mr. Nash's original Estimate under this head was £.	21,270 – –	
This did not include an Estimate of £. 11,000 for the Houses of Lord Belfast, Sir W. Stirling, Mr. Phillips, and Mr. Henry Harman, on the South side of Pall Mall	11,000 – –	
The whole of which has been submitted to and sanctioned by the Treasury. £.	32,270 – –	

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In Mr. Nash's statement of the expenses attending the Carlton Palace improvement, and those in St. James's Park which he estimated, it will be seen, from the last Memorandum which I gave in, that the whole of the expense attendant upon that improvement would amount to 32,270*l.*; but, in addition to this, there would be a sum of 1,260*l.* for a new Sewer, and there would also be an additional expense of 19,253*l.* for the expenses to be incurred in the improvements of St. James's Park; therefore it will be observed, that the whole expense attendant on all the improvements of Mr. Nash, supposing that they were to be carried into execution,

execution, would amount to the sum of 52,783*l.* With the permission of the Committee, I will give in a Memorandum, explaining the whole of the detail.

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[*The same was read, as follows:*]

DETAILED STATEMENT of Mr. Nash's Estimates of *Expenses* attending the Carlton Palace Improvement, and those in St. James's Park.

Buildings, &c. on the Site of Carlton Palace.

1.—Sewer in Pall Mall	£.	3,000	– –
2.—Moving the King's Stables, exclusive of the Riding-house		6,800	– –
3.—Additional Building in lieu of Riding-house		2,500	– –
4.—Temporary Roads, Hoard, &c.		600	– –
5.—The Fountain, complete		8,000	– –
6.—Watchmen, Clerk of the Works, &c.		370	– –
	£.	21,270	– –
6[a].—For the Purchase of the interest of Sir Walter Stirling, Earl of Belfast, Mr. Phillips, and Mr. Henry Harman, in Houses in Pall Mall		11,000	– –
A.	£.	32,270	– –

Building on the Site of Marlborough House and Gardens.

6[b].—A new Sewer	B. £	1,260	– –

Building on the South Side of St. James's Park.

7.—Iron Railing, Gates and Lodges, surrounding the whole Park	£.	7,703	– –
8.—The Ornamental Water, forming the Ground for Plantation, making and finishing the Gravel Walks, making the Roads, draining the whole, and every thing else within the enclosure of the Park, including the Alterations in the Malls		8,350	– –
9.—Common Sewer		3,200	– –
C.	£.	19,253	– –

A.	£.	32,270	– –
B.		1,260	– –
C.		19,253	– –
	£.	52,783	– –

The Commissioners of Woods, &c. have instructed Mr. Nash to proceed with the Works specified in the items marked 1, 4, 6, 7, and 8.

It is right to observe, that in consequence of its not being necessary to build new stables for His Majesty, there will on the whole sum of 52,783*l.* be a saving of between nine and ten thousand pounds.

What progress has been made in letting the land on which those buildings are to be erected?—I have already stated to the Committee, that no part of the plan has yet been undertaken, except that which relates to the site of Carlton House and its immediate vicinity. The rents already agreed upon for parts of that ground amount to the sum of 3,508*l.*; by this I mean that so much ground has already been let as will produce in rental the sum I have just mentioned. The Committee will recollect that Mr. Nash's plans and estimates, with regard to the profit to be derived from the undertaking, went very much upon the expectation that the rents would be commuted wholly and altogether into fines, and that a very large sum of money would thus be derived for public purposes; I have, however, to inform the Committee, that in this part of Mr. Nash's plan we have as yet been able to make scarcely any progress, for the whole sum which has been received on this account amounts to 2,268*l.*, being a payment by Sir Matthew White Ridley; he has bought, however, only a portion of his rent; his original rent, supposing he had not commuted part of it by a fine, would have amounted to 168*l.*; but he has commuted so much as would amount annually to 126*l.*, leaving

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leaving the rent to be paid till the termination of his lease of ninety-nine years, 42*l.*

Has Mr. Nash's plan, enabling persons to purchase the rents of their houses for a fine, been acted upon in any instance, or is it intended so to act?—I have already said that Mr. Nash's plan has only been acted upon in the instance of Sir Matthew White Ridley, and that partially. He had the intention of selling the whole rental to be derived throughout the lease of ninety-nine years; but it is necessary to inform the Committee, that according to the Act of Parliament for granting leases upon the site of Carlton House, it would not have been possible to have acted upon that plan; by that Act (7th Geo. 4, c. 77, s. 78) authority is given to commute a portion of the rental for fines, but not the whole of it; thus the Crown would still possess the freehold, but the rental derived by the Crown would, as far as commutation by fine went, be so much lessened. Perhaps it may be proper to give upon this part of the subject some further explanation to the Committee. By various Acts of Parliament, the Land Revenue department has authority, under the sanction of the Treasury, to sell Crown lands; but when lands are let on building leases, no authority exists to commute by fine the rent to be derived from houses newly built. Carlton House site makes an exception to that general rule, for, by the above recited Act of Parliament, permission, as I have already stated, is given to commute a portion of the rental for fines, but not the whole.

Is that portion stated in the Act?—It is not stated.

You stated, that the actual rents already agreed upon were 3,508*l.*; has any proportion of that been already received, or are they still on the pepper-corn rent?—They are still under the pepper-corn rent, which lasts for the first two years after the ground is taken.

You conceive that the plan for building a Street on the site of Marlborough House, has never yet received the sanction of Government?—Although to the Treasury Minute a detailed Plan is affixed, showing all the improvements which in relation to St. James's Park and its immediate neighbourhood Mr. Nash has at any time contemplated, no sanction has been given beyond that part of the plan which refers to the site of Carlton House and its gardens on the North side, and also to the line of buildings intended to be erected on the South side, in the line of the Birdcage Walk.

Has any calculation been made of the loss resulting from the number of years during which there is no rent resulting to the Crown?—Previously to the letting this ground upon building leases, no rent was received, for His Majesty lived there. It will be a matter of easy calculation to show how much more rent would have been received if pepper-corn rents had not been granted; but in a great work of that kind, where the state of the ground is such, that when some of the houses are built it will be exceedingly inconvenient to live in them till the others are erected, it would deter persons from building houses, unless they were permitted to have them for a fixed term at a pepper-corn rent. Indeed, this is the invariable practice with all ground landlords as well as with the Crown.

Is there any expectation that the rest of the ground will be shortly let?—I believe that the reason why the whole has not been already let is, that we have not proceeded, with regard to the site of Carlton House, in the same manner as we do with regard to all other building ground belonging to the Crown. Our usual practice is to let the ground to any substantial builders of respectability, who are willing to take it; but it was thought proper by His Majesty, and also by the Government, that as on Carlton House site a great portion of the houses were to be of the first class, and that as the inhabitants of them would be mostly persons of distinction, builders should not be applied to to take the ground. Many builders would have taken the whole immediately, as I was informed. Indeed, had the Carlton House site been let to builders on speculation, they would have required three years pepper-corn rent, and thus one year of real rent would have been lost to the Public. The applications were at first so numerous, that it was exceedingly difficult to make a choice, and to select who should be the persons to have liberty to build; and it appeared to me that the most fair way of proceeding was to take the dates of all the applications, to put down the names of all applicants according to their dates, and then to submit the whole to His Majesty, who had desired to see the lists. It subsequently occurred that many persons (the instances, indeed, were numerous) who had expressed the greatest anxiety to take ground for building, either from changing their minds, from getting houses elsewhere, or for other reasons unknown to me, wrote to inform the

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Office that they abandoned the intention of building; and the consequence has been, that a considerable portion of the ground to be let on building leases is as yet not taken. But within a very short period (indeed, I believe, within this last fortnight) Mr. Nash has made an offer to take the ground for five houses of the first size, adjoining Sir Matthew White Ridley's house; and the proposal of that gentleman is, as it appears to me, a most exceedingly fair one. He has said, that being anxious that the whole plan should be completed, he will build the houses at his own expense; that any persons who may hereafter wish to take either one or all of those houses shall have permission so to do, upon paying the money which shall have been laid out; and he will further bind himself not to allow any persons to inhabit those houses, unless they shall be approved of. It is therefore my intention to make a report to the Treasury immediately, stating what Mr. Nash's proposal has been, and to recommend the acceptance of it.

What is the quantity of ground still unoccupied?—By reference to what Mr. Nash expected to get as the rental for the whole of that ground, and deducting the rental which is now agreed for, we shall have the exact proportion of ground not yet taken on building leases.

Then Mr. Nash's plan appears to be simply the obtaining a sum of money by the building of houses?—I have given to the Committee the estimates which Mr. Nash first proposed to us, and I have shown what has hitherto been the result. We have not, as yet, been able to realize more than something above 2,000*l.* as already stated.

Mr. Nash was, then, erroneous in his view that the building on Carlton House Garden would procure for him a large sum of money to carry on other improvements?—Yes, certainly; Mr. Nash's original expectation of obtaining a large sum of money, has not yet been realized.

The building on the site of Carlton House thus far, has been an expense, and not a profit, the rents being not received?—Thus far an expense has been incurred; and as yet (with the exception of the payment by Sir M. W. Ridley) we have had no profit; but, eventually, I believe that Mr. Nash's estimate as to rental will be realized.

Were there applications sufficient made at first, including those which have been since rescinded, to occupy the whole of the ground?—Many more applications were made than it would have been possible to accede to, far beyond the extent of the ground.

Mr. Nash's plan failed in consequence of his plan not being carried into effect of selling the rental at twenty years purchase, and so obtaining the money?—We should under no circumstances have obtained all the money that Mr. Nash contemplated, because, as I before stated, no power existed of selling the whole rents, we could only have sold a part of them. Certainly, as far as we have gone, that part of Mr. Nash's plan has failed; and if I am to give my opinion from what has already occurred, I myself have not any expectation that any considerable sum of money will be derived from individuals commuting their rents by fines. It is right, however, to state, that although the proprietors themselves may not choose to buy up their rents, it would be in the power of the Government to sell to any other individuals such a proportion of the rents as it might be thought fit to part with, and in this manner, though certainly not to the extent contemplated by Mr. Nash, a considerable sum of money might be obtained.

The houses on the Great Terrace are considerably smaller in size than was originally expected, are they not?—I should say that it was always intended, in keeping to the elevation which was to be a guide for the whole building, that individuals should have the power of taking that proportion of frontage which might suit their purposes.

What is the part not now disposed of?—The part not now disposed of, is almost the whole of the Eastern wing of the Terrace.

What sum is put upon that?—Four guineas per foot frontage.

With what depth?—About a hundred feet.

To your knowledge, did the withdrawing of any of the applications originally made for building ground, arise from any departure from Mr. Nash's plan?—None whatever; many persons, friends of my own, gave in their names, and afterwards withdrew them; it arose merely from a change of inclination.

Would it be any departure from an engagement with those persons, if the Fountain should not be built?—None whatever.

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Would it be any departure from the engagement with those who have built houses, if an Entrance should be made from Waterloo Place into St. James's Park?—I will inform the Committee why I do not feel myself competent entirely to answer that question. Upon questions being put to me in the House of Commons, I stated, that the plan for the whole undertaking, having been sanctioned by Lord Liverpool and the Treasury, was submitted to His Majesty, and approved of by Him; and in that plan which was sent to my office, there certainly was not a flight of steps. I have since been told, that several of those who had taken houses would be exceedingly anxious to have those steps, and that they do not feel that it would be a departure from the agreement made with them; but on the other hand, though I have not heard it from the individuals themselves, I am told that there are some who would consider it a departure. All I know is, that it was not in the original plan: and it is not in my power to say to what extent it might be considered, or not, a departure from the agreement made with those who took the ground.

Do you not conceive it might be so contrived, as in no way to violate those leases, as, for instance, if it went under ground?—In my own opinion, it would not be a violation.

There is no engagement on the part of the Office with the individuals, that it should or should not be made?—The whole of the duty of my department was to communicate with Mr. Nash respecting the plan sent from the Treasury, and we had not the power of making any alterations in that plan; and certainly in that plan, as I have before stated, there was no flight of steps.

Was there any legal covenant in the leases, that would bind the Government?—The leases are never granted till the houses are covered in; but in the correspondence with the parties, there was no such stipulation.

Have the goodness to explain to the Committee what has been done with respect to the Strand Improvements?—The first letter from the Commissioners of the Office of Woods to Mr. Nash, desiring him to offer any suggestions he might have to make as to the direction and extent of the improvements proposed at Charing Cross and the Strand, was in March 1825; in July 1825, the Office of Woods transmitted Mr. Nash's suggestions to the Treasury; and in August 1825, Mr. Nash was directed to furnish detailed estimates. I have with me, Plans, by reference to which it will be seen what was sanctioned by the Treasury in respect to improvements at Charing Cross and its neighbourhood, and in the Strand; and, with the leave of the Committee, I will give in a Memorandum, stating what was the estimate for the intended improvements, what were the means by which those improvements were to be carried into effect, and what progress has been made towards the execution of them.

[*The same was read, as follows*:]

MEMORANDUM, dated New Street Office, 13th March 1828, given in, and read.

"*Charing Cross and Strand Improvement.*

State of Proceedings under the Act 7th George 4, c. 77.

FOR effecting the improvements at and near Charing Cross, and in the Strand, under the said Act, 602 houses and buildings were required, the freehold of which was understood to be the property of eighty-seven parties, and the cost of purchasing the same, together with the existing leases, including compensation for removals, good-will, &c. was estimated by Mr. Nash at 748,792 *l.* 12 *s.* 1 *d.*

It obviously must have been difficult, if not impossible, for the Commissioners to have arrived at any thing like certainty with regard to the justness of Mr. Nash's estimates; but as, in the formation of them, that gentleman had the advantage of the experience which he had obtained in his New Street transactions, and as the sums allotted in the Charing Cross and Strand estimates, for good-will, &c. very much exceeded what he had supposed would be required in his former abovementioned undertaking, it was to be imagined that upon the present occasion his estimates would not very widely differ from what would ultimately be found to be the actual expense.

To effect these improvements, it was provided by the Act that a sum of 400,000 *l.* should be borrowed from the Commissioners for the loan of Exchequer Bills, and it was intended that the produce of the sale of estates of the Crown should be applied to the same purpose, in order to complete the sum required.

In pursuance of the said Act, the freehold of 202 houses and buildings, shown by the colour red on the Plans marked A. has been purchased at the price of 213,968 *l.* 11 *s.* 3 *d.*; and the freehold of 47 houses and buildings, shown by the colour blue on the same Plans, has been acquired by exchange.

One

One hundred and eighty-seven leasehold interests have been purchased in the houses and buildings, shown by the colour green on the Plans marked B. at the price of 251,754*l.* 16*s.* 2*d.*; and leasehold interests in premises, shown by the colour blue on the same Plans, to have been acquired by exchange.

That portion of the property in which the freehold and all the leasehold interests have been purchased or acquired by exchange, is shown by the colour yellow in the Plans marked C."

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How far in the purchases already made, has the estimate for the site and good-will, &c. been kept to or exceeded?—When the estimates were first given in by Mr. Nash, and in consequence of my knowing that he had fallen (and I would say unavoidably) into great errors and mistakes in his former estimates, I gave orders to have estimates made in various instances by other persons, of what would be the expense of purchasing the particular plots of ground which I had pointed out. It was done in three or four different instances; and the report to me was, that Mr. Nash's estimates, and the estimates made by other persons who had not known what Mr. Nash's estimates were, coincided very nearly. This gave me the hope and expectation that he had gone on much safer grounds in the present estimates, than he had in those relating to the New Street. But on my return to office, at the commencement of this year, I inquired whether in the progress of the work it turned out that Mr. Nash's estimates had been correct or not; and the answer to me was, that although in some instances Mr. Nash had been borne out in the valuations he had made, yet that in others he had greatly underrated what has been demanded and obtained for good-will. I cannot at this moment inform the Committee what deviation from Mr. Nash's estimate has already occurred; but I will do the best to inform myself accurately upon that subject.

Have many cases gone before juries?—There have been several.

What do you mean by "exchange"?—The Crown has property in various parts of London, portions of which have been offered to and accepted by the holders of property on the site of the projected Improvements, and who have thus been willing, instead of selling their ground to us, to take other Crown land by way of exchange.

Is there any Crown property over which this Plan goes?—About the Mews there is some, and behind the Mews; and also towards Orange Court.

Is the exchange of taking that part of the Crown property, included in the estimate of 748,000*l.*; or is that extra?—As far as the exchanges go, there ought to be a deduction from Mr. Nash's estimate. He estimates what would be the whole cost; and certainly, if parts of the ground on which the improvements are to be made are not paid for, but got by giving up portions of Crown property, the value of the part so acquired by exchange should be deducted from the amount of Mr. Nash's estimate.

Are the alterations which are to take place in the neighbourhood of St. Martin's Lane, in the prosecution of any extended plan for a better communication to the Eastward?—In answer to the question now put to me, I would beg leave to refer to the Fifth Report of the Commissioners of His Majesty's Woods, and it will there be seen that Mr. Nash's first plan, sent by my Office to the Treasury, contemplated much more extensive improvements than those which are now sanctioned. It is stated in that Report, that when the communication between Pall Mall and Portland Place had been completed, measures were taken for proceeding to execute that part of the improvement which had for its object a continuation of Pall Mall into St. Martin's Lane, and that we had directed Mr. Nash to furnish us with plans, desiring also that he would suggest what might appear to him the best mode of improving the communications through the Western parts of the Metropolis. The first of those improvements was a more commodious access from the Houses of Parliament, and the Courts of law and Public departments, to the British Museum. Another opening, to which we directed Mr. Nash's attention, had for its object the continuation of Coventry Street into Leicester Square, and from thence through Long Acre, Great Queen Street, and Lincoln's-Inn Fields into Holborn, near the North-east corner of Lincoln's-Inn Fields. It appeared to us that this latter improvement might be effected by the purchase of a comparatively small number of houses; and that by opening a new communication from West to East, near to the centre of the town, the Strand would be relieved from a portion of that immense concourse of carriages of all descriptions with which it is constantly crowded. Mr. Nash furnished us with plans for effecting the objects which we had in view; and to those he added a plan for a more direct communication than at present exists between Oxford Street and Holborn. These

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several Plans will be found in the Appendix to the Fifth Report; and they were submitted to the Lords of the Treasury, with our opinion that they were well entitled to their Lordships' attention. We were however directed to prepare the best estimates we could of so much of the proposed plan as related to alterations in the neighbourhood of Charing Cross, St. Martin's Church, and the West end of the Strand, their Lordships intimating to us, that they deemed it advisable that the consideration of the remaining part of the proposed improvements should be postponed. The execution of a great part of what was proposed was thus deferred for the present; but as the convenience, the ornament, and the health of the Metropolis would be much promoted by them, we expressed a hope that the whole would be hereafter reconsidered, and ultimately adopted.

YOU were requested to procure another Map, showing what part of the ground appropriated to the Improvements in the neighbourhood of the Strand, is still unpurchased, either with reference to the freehold or the leasehold?—I have a Plan and a Memorandum with me for that purpose; and it may be desirable that I should give them in. The Memorandum will show what additional sums have been expended in the Charing Cross and Strand improvements up to the present day, in addition to the papers already before the Committee; and it also refers to the Plan (marked letter D.) in which, as shaded with Indian ink, it will be seen what interests, freehold and leasehold, remain to be purchased. The last paper given in upon this subject was dated the 13th of March. Since that date, the undermentioned purchases have been agreed upon; the freehold interests amounting to 6,887*l.*, the leasehold interests amounting to 26,267*l.*; taking the sum stated in the former paper, and taking the additions to it for the purchases made subsequently, it will appear, from the paper now given in, that purchases have either been made or agreed for to the amount of 498,878*l.*

[*The Paper was read, as follows:*]

Since the 13th of March last, the under-mentioned PURCHASES have been agreed upon; *viz.*

The freehold interests of 5 parties, in 9 houses, at the price of	- -	£. 6,887	5 –
The leasehold interests of 16 parties, in 24 houses, at the price of	- -	26,267	19 6

SUMMARY of PURCHASES made up to the present Date.

By Paper dated 13th March 1828, freehold interests in 202 houses, cost			£. 213,968	11 3
From the 13th of March to 5th May, by the present Paper -	d° - -	9 houses - -	6,887	5 –
	211		£. 220,855	16 3

		£.	s.	d.		
By Paper dated 13th March 1828 - -	leasehold interests in 187 houses, cost	251,754	16	2		
From the 13th March to the 5th of May, by the present Paper	d° - - - 24 houses, cost	26,267	19	6		
					278,022	15 8
					£. 498,878	11 11

Plan D.—No interest whatever has been purchased in the parts of this Plan which are shaded with Indian ink.

With regard to the improvement which is specified in the Plans of the last Report of the Commissioners of Woods and Forests, of a wide Street from the line of the present St. Martin's Lane up to the British Museum, have any proceedings been taken upon that?—In my previous evidence I stated that those plans were given to my office by Mr. Nash, and that the report upon them (together with the plans) was sent to the Treasury; I also stated that the Treasury, after taking the whole into consideration, thought it right not at once to undertake a work which would lead to such a very large expense, but directed my office to have estimates formed of that part of the plan which has since been sanctioned by Act of Parliament.

Was not the opposition of Lord Salisbury to that measure one of the principal causes of its relinquishment?—Lord Salisbury made certainly the strongest possible opposition to entertaining the idea of such a plan; what might have been the result, provided the Treasury had felt that the funds at the disposal of my office would be equal

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equal to the whole of the undertaking, I cannot pretend to say; but certainly the difficulties thrown in our way by Lord Salisbury's objections, (he giving in statements and accounts which tended to show that the loss to him must be immense) would have induced the Government, even if money had not been wanting, to contract that part of the plan in which Lord Salisbury was interested, with the greatest care and attention. I ought to add, that although Lord Salisbury has not personally stated it to me, I have been told, and I believe upon the best authority, that his objections to the plan, if hereafter it should ever be re-considered, will not be at all the same as they were when the plan was first mentioned to him.

It would never have been contemplated by the Government not to compensate Lord Salisbury?—It never would have entered into the thoughts of Government to compensate Lord Salisbury in any other way than is the case with regard to every other individual. He would have been precisely upon the same footing as all other proprietors, whether the smaller ones, or whether such as the Duke of Bedford and Lord Exeter. Whatever the result to him might have been, supposing that Parliament had sanctioned the plan, he must have shared the fate of other individuals, who to a certain extent are oftentimes obliged to sacrifice their private feelings and interests for the public good.

The notion of Lord Salisbury with regard to his eventual loss, you would consider as very much imaginary?—It was clearly our opinion, after taking the best view of the subject we could, that Lord Salisbury was in error. His property in St. Martin's Lane and in the parts adjoining is very great indeed; we imagined, and our notions were formed upon the best consideration we could give to the subject, that an improvement in St. Martin's Lane, by widening the street, and by the better description of house which would be erected upon that line of ground, would have given great pecuniary advantages to Lord Salisbury beyond what he can possess at present. This representation was made to him; but he met it by saying, that all this might be perfectly true as far as the line of St. Martin's Lane itself was concerned, but that he had most valuable property on the sides of St. Martin's Lane, having communication with St. Martin's Lane by streets and alleys, for which at present he received very considerable rents; and he had been led to believe that these parts of his property would be very much diminished in value after the alterations contemplated in St. Martin's Lane had been made.

Leaving out of consideration for a moment the communication Northward, was any estimate ever made of the expense of making a communication Eastward, to communicate from Coventry-street to Long Acre, across that part of Lord Salisbury's property?—The plans were given in; but the mode of proceeding is this; Mr. Nash, or any other architect who may be called upon to make plans, must of course form a general notion, while he is making them, of what the expense will be; but he does not make regular estimates until the plans have received the sanction of the Government; I cannot therefore tell the Committee what the expense to which the honourable Member has alluded, would be. The only estimates I can give are those already before the Committee; and these refer to the part of the plan which was ultimately sanctioned.

That part of the plan which was ultimately sanctioned, was intended to give a great relief to the communication of the Town between its East and Western districts?—That certainly was a very main object in the undertaking; and this is stated in some detail in the Fifth triennial Report of the Commissioners of Woods and Forests.

Was any other plan ever considered, which might have obtained that object at a cheaper rate than the laying open so much ground in the neighbourhood of St. Martin's Church, to be perfectly unoccupied?—It was felt by the Government, and I believe very generally by the Public, that in no part of the Metropolis was there greater need of improvement than in the Strand; and certainly the attention of my office was particularly directed to the line of the Strand. We gave orders that a general plan for several different lines of communication from West to East should be laid before us, hoping that, although it might not be in the power of the Government to undertake them all at once, the very existence of plans upon a general scale would enable those who come after us to follow up the improvements now undertaken, by a completion of the whole.

Do you not conceive it would be a great relief to the traffic of the Strand, if a communication was made from Coventry-street to Long Acre?—I think it would be the greatest possible relief, and we had that in view when we directed Mr.

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Nash to send in his plans; but I have already informed the Committee that the Treasury, from want of sufficient funds to undertake the whole, confined us to that portion of the general improvement which is now in progress.

Have the Government any power to purchase up ground with reference to any ultimate improvement, not specially noticed in any Act of Parliament?—By Act of Parliament, the Office of Woods, under the authority of the Treasury, may make both purchases and sales.

Have the Crown at this moment any power to purchase the property of Lord Salisbury, in Cranbourne Alley, in reference to the carrying into effect that opening from Coventry-street to Long Acre?—The power certainly does exist of making purchases any where, if the Treasury should so think fit, and if the funds at the disposal of the Government should be sufficient for the intended purpose.

Was there a proposal ever made for the purchasing Cranbourne Alley, since the publication of those Reports, during the period when Lord Salisbury had pulled down the greater portion of Cranbourne Alley?—Certainly not whilst I was in office, and I have never heard of it since I have returned to office. But indeed I must here say that I should feel the office to which I belong had gone very much beyond its powers if it had undertaken any thing of the kind, for we had been directed by the Treasury to confine ourselves to that part of the plan for which a Bill was brought into Parliament, and which passed into a law.

The Committee have before them the Act of 7 Geo. 4. c. 77; by the twentieth section of that Act, the Commissioners are empowered to sell, exchange, or lease premises not wanted for the purposes of that Act; what premises have been sold in consequence of that?—There have been no sales made, nor have any leases been granted.

By section 47, of the same Act, power is given to borrow money on mortgage of houses, &c.; what proceedings have been taken upon that subject?—In answering this question, I would observe, that in a subsequent clause, 49, power is granted to borrow Exchequer Bills. In section 47, to which the honourable Member alludes, power is granted to borrow Money on mortgage. It may be asked, Why were there two clauses seemingly so similar to each other; and I would answer, that our solicitor informed the Board that unless there were two clauses, one permitting Money to be borrowed, and the other permitting Exchequer Bills to be borrowed, a difficulty might arise, and we might not have the full authority intended to be given. Therefore, in section 47, power was given to borrow Money, and in section 49, power was given to borrow Exchequer Bills. In point of fact, no Money has been borrowed; Exchequer Bills to the amount of 400,000*l.* have been borrowed.

That was the whole sum you were empowered to borrow?—The two sections together give the power of borrowing 400,000*l.* in the whole, taking advantage either of the one clause or of the other, or, if we had pleased, of both. Had we thought fit to borrow 400,000*l.* in money, by the authority of section 47, we could not have availed ourselves of the power given by section 49, to borrow Exchequer bills.

By section 79 of this Act, the monies arising from the sale of the Palace of Carlton House, and also from fines, are to be applied for the erection of Buckingham House; what sum has been so applied?—This section certainly had reference to the money which Mr. Nash in his calculations expected to arise by fines; but, in point of fact, no fines have been sold, except the small one mentioned before, to Sir Matthew White Ridley, for somewhat above 2,000*l.* With reference to the money advanced from the revenue of my department, in addition to the 250,000*l.* lent by the Treasury from the fund in the hands of the Commissioners of French Claims, a sum amounting to between twenty-seven and twenty-eight thousand pounds has been applied to the repair of Buckingham House out of the Land Revenue.

No part of the 400,000*l.* advanced by the Exchequer Bill Commissioners has been applied to the repair of Buckingham House?—Not one shilling.

What sum will probably be applicable in the current year to the expense of the works at Buckingham House?—I should say that about 60,000*l.* will be applicable to the building of Buckingham Palace from the current revenue of my department, in the present year.

What is the probable amount applicable to that object in the next year?—In next next year I should hope that a larger sum would be applicable to the same purpose; and my reason for hoping it is this, In the present year we are still

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continuing payments upon charges already sanctioned by the Treasury; but very nearly the whole of those payments will be made in the present year, and I have reason therefore to believe that about 100,000*l.* will in the ensuing year be applicable to the expenses of Buckingham Palace.

All the land revenues of the Crown which are not required for previous engagements, are in the first place payable towards the repair of Buckingham House, are they not?—Yes, they are, according to the Act of Parliament brought in by Lord Goderich, when he was Chancellor of the Exchequer.

That Act is intended to be acted upon?—Yes, it is intended to be acted upon till the whole building is completed.

At what amount do you estimate the whole land revenue of England and Wales for the current year, and also for the next year?—That revenue varies from year to year; in some years the fines taken upon renewal of leases of houses are greater than in other years; but in round numbers, I would state, that the whole of our revenue in England and Wales amounts now to about 200,000*l.* a year.

Does any thing come from Scotland to your department?—Nothing comes from Scotland to my department as yet, and therefore I am not able to inform the Committee what the amount is of the land revenue in that part of the Empire. It is intended, however, that the land revenue of Scotland shall be put under my department in the same manner as the land revenue of Ireland has already been.

At what do you estimate the yearly land revenue of Ireland?—The yearly land revenue of Ireland, as given in to my office, amounts to about 56,000*l.* a year, of which 44,000*l.* a year arises from quit-rents, and the remainder from what are called Crown rents.

The Committee have before them the Act of 7 & 8 Geo. 4, c. 68, intituled, "An Act for the management and improvement of the Land Revenues of the "Crown in Ireland, and for other purposes relating thereto;" by the 12th section, power is given to the Commissioners of Woods and Forests to sell rents and other possessions of the Crown in Ireland; what has been done in consequence of that?—Up to the present time, quit-rents have been sold in Ireland, by which a sum of about 12,600*l.* has been realized; and I would add, that from the general land revenue of Ireland, my office has received up to the present time, from the period of the transfer, about 41,800*l.*

To what have those sums been applied?—To the general purposes of the department, and to meet the charges which were upon it.

Has any portion of those sums gone to the repairs of Buckingham Palace?—As the whole has been paid either into the Bank of Ireland or the Bank of England, and taken from those Banks as occasion required, it would not be possible for me to say what part of the surplus of the revenue has been so appropriated.

By section 23 of the same Act, the Commissioners are empowered to buy in Crown leases; has any thing been done upon that?—Nothing has been done under the power of that clause.

By the 50th section, the Commissioners are empowered to borrow such sum as the Treasury shall think necessary, on mortgage of the possessions of the Crown in Ireland; what proceedings have been taken upon this section?—No proceedings whatever.

Has the money advanced from your department towards the building of York House, been repaid?—It has not yet been repaid. Lord Stafford has paid the purchase money into Coutts's bank, and it is there (what one may call) impounded; it cannot be made use of until York House has been delivered over to Lord Stafford; but, as soon as the house is so delivered over, the 56,620*l.* advanced by my department under the orders of the Treasury, will be repaid.

Is your Deparrment the first claimant on York House, because the Treasury also advanced money upon it?—I will not say that it is my Department, or the Treasury, but that the Crown is the first claimant. The reason why the money was ordered to be paid from my department was for the purpose of getting that lien upon the premises which would enable the Crown to prevent any other person from getting possession of it.

Supposing the sum advanced by the different departments of Government to exceed the price which will be received from my Lord Stafford, would that loss fall on your department?—No, certainly not; my department is to sustain no loss whatever. A pledge has been given to us by the Treasury, that the money advanced by us for the purpose above stated shall be repaid. It is not in my power

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to state to the Committee what sums, in addition to that sum of 56,620*l.* from my office, have been advanced by the Treasury; I understand that the Treasury has made additional advances, but I am totally unable to say to what extent.

By the Act of the 6th Geo. 4, c. 77, the whole of the land revenue not previously engaged for other works, is applicable to the repair of Buckingham House; under those circumstances, it is the intention of the Commissioners of Woods and Forests to apply the revenue according to the purposes of the Act?—Yes, according to the purposes and under the construction of that Act.

Under those circumstances it of course would follow, that the rest of the improvements in London must be delayed in consequence of the repair of Buckingham House?—No, certainly not. When I brought the Bill into Parliament for those improvements, which afterwards passed into a law, I particularly stated that it was not the intention of the Government to defray the expenses of those improvements out of the current revenue of the department; but that in order to forward what was considered to be a great national object, the property of the Crown might be mortgaged to the extent of 400,000*l.* by way of loan, and the remainder, amounting, by Mr. Nash's estimate, to between three and four hundred thousand pounds, might be obtained by the sale of Crown estates.

As the produce of the sale of those Crown estates may also go to Buckingham House, the sale of those estates must necessarily take from the sum which would be otherwise appropriated to the improvements of London?—If Crown estates are sold, and several of them are now under sale for the purpose of the Strand improvements, they will go into a fund applicable to those improvements, and no part of the produce will go to any other purpose whatever. I ought, however, in fairness to state (and I belive it was so stated to the House of Commons at the time) that, to a certain extent, the income of the land revenue will be diminished by interest paid for monies borrowed, and that that income will sustain a further diminution from sales.

The case stated, with regard to the sale of Crown property in Ireland, is equally applicable to the improvement of Buckingham Palace?—It is so by the Act of Parliament; but I would again state, as distinctly as I can, that there is in my office what is called "The Charing Cross Improvement Department;" that the whole proceedings of that department are kept entirely distinct from the proceedings in the Land Revenue; that by the Act under which those improvements are to be effected, we have a separate fund at the Bank of England, called the "New Street Fund;" that the money borrowed under the power of that Act can in no instance be appropriated to any other than the purposes immediately connected with those improvements; and that the purchase monies for estates, which are to be sold for the purpose of completing such improvements, will be paid into that fund, and appropriated solely to that purpose. I may add also, that our Triennial Reports to His Majesty and Parliament, contain the fullest particulars as to the receipt and application of all monies under our management, and as to the various Acts of Parliament under which those monies are so received and applied.

The revenues of the Crown being, by the Act (6th Geo. 4, c. 77) appropriated, in the first place, to the repair of Buckingham House, must necessarily prevent the Commissioners of Land Revenue from undertaking other improvements in London, which would be paid out of those revenues?—I should certainly say that the Treasury would not authorize my department to bring a Bill into Parliament for any further improvements of an expensive nature, until the burdens at present chargeable on our funds, for Buckingham Palace or for any other purpose, shall have been entirely completed, and the revenue thus set free.

Can you state what payments have been made towards the expenses of the repairs of Buckingham House, by the Office of Woods and Forests, distinguishing the sources from which the payments so made have arisen, so far as it can be stated?—The whole sum paid by my Office for Buckingham Palace amounts to 277,767*l.*; of that sum 250,000*l.* was advanced to my Office by the Treasury, from the money in the hands of the Commissioners for French Claims, and the advance was made by way of loan, to be repaid with interest when called for. I have a Paper in my hand, which will show the dates at which all the payments have been made: With the leave of the Committee I will give it in.

[*The same was read, as follows:*]

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PAYMENTS to the BOARD OF WORKS, &c. for *Buckingham Palace.*

DATES of ACTUAL PAYMENTS.			£.	s.	d.
BOARD OF WORKS:					
£. s. d.					
14,000 – –	5th Jan. - 1826	Quarter to 10th Oct. - 1825 -			
6,534 18 9	15th Jan. –		20,534	18	9
	5th April –	- — - 5th July - 1826 -	33,276	4	4
	4th July –	- — - 5th April - – -	36,400	10	2
28,681 2 2	26th Oct. –				
11,045 12 8	14th Dec. –	- — - 5th July - – -	39,726	14	10
	13th Feb. - 1827	- — - 10th Oct. - – -	36,362	5	1
	11th April –	- — - 5th Jan. - 1827 -	22,776	13	7
	18th Oct. –	- — - 5th April - – -	16,087	3	11
	14th Dec. –	- — - 5th July - – -	24,649	5	7
	3d Mar. - 1828	- — - 10th Oct. - – -	22,747	9	2
		£.	252,551	5	5
COMMISSIONERS OF SEWERS:					
	30th Jan. - 1826	For a new Sewer - - - -	1,982	3	–
MR. NASH:					
	28th Jan. - 1826	For Marble £. 1,000 – –			
	27th – –	— - - - 2,000 – –			
	26th Dec. –	— - - - 4,000 – –			
	5th Feb. - 1827	— - - - 2,500 – –			
	30th July –	— - - - 3,000 – –			
	14th Jan. - 1828	— - - - 4,000 – –			
			16,500	–	–
MR. AITON:					
	30th Aug. 1827	For Ground Works in the Gardens - 1,941 – 8			
	17th Dec. –	— - - - 292 16 11			
			2,233	17	7
MESSRS. ROSSI, WESTMACOTT, and BAILEY:					
	29th Nov. - 1827	For Sculpture (each £. 1,500) - -	4,500	–	–
		£.	277,767	6	–

Office of Woods, &c.
March 11th, 1828.

Your Office does not pay those sums directly to persons employed in the erection?—I will state what the proceeding is: The Office of Works is directed by the Treasury to superintend the whole of the works immediately connected with the edifice: The bills, in the first instance, are sent into the Surveyor-general of Works; they are then verified by proper officers of his department, who certify to the Treasury the propriety of their being paid; by the Treasury the bills are sent to my office, and they are there discharged. With the building itself my office has no further concern. The payments, however, to the Commissioners of Sewers, to Mr. Nash for marble, to Mr. Aiton for ground works in the Palace Garden, and to Messrs. Rossi and others for sculpture, have been made in discharge

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of bills referred to us for that purpose by the Treasury, and which are not under the control of the Surveyor-general of Works.

You have stated that the sum of 250,000*l.* advanced by the Treasury, bears interest; what interest does it bear?—The Lords of the Treasury merely directed that it was to be repaid with interest; the rate of interest was not specified. No demand has been made for repayment, and neither principal nor interest has been paid.

How far do you conceive that the revenues appropriated to those several works will be able to defray the expense of them?—With reference to the Act which authorized the improvement in the Strand, the whole sum required for that improvement, according to Mr. Nash's estimate, was 748,000*l.* The means for raising that sum were partly by borrowing and partly by sales of estates. I have already stated, that we have borrowed all that the Act will permit us to borrow, namely, 400,000*l.* We should have sold estates, the produce of which with that sum would have been sufficient to complete the work (supposing Mr. Nash's estimate should not be much exceeded) had it not been that the depressed state of landed property in general rendered it extremely desirable not to bring into the market any portion of the property of the Crown for sale, so long as we should find ourselves in possession of sufficient funds for the current purposes of the undertaking. When I came back to my office, I found that the sales which had been contemplated, and of which a list had been previously given to me, had, for the above reason, been deferred; but our surveyors inform us, that at present landed property bears a better price in the market than it did sometime back; and, in consequence of this information, and also in consequence of the necessity of procuring money for the purpose of proceeding with the undertaking, several estates are now offered for sale. Even yesterday, an estate near Sheffield, which it was supposed would produce at least 60,000*l.* was sold by auction; and from the general knowledge and experience of Mr. Driver, the surveyor employed, we have every reason to believe that the sum stated in his estimate will be realized. There are many other estates which it is now in the contemplation of my Office, having received the authority of the Treasury, to offer for sale; and I have no doubt that a sum of money amounting to between two and three hundred thousand pounds may, in this manner, be realized before the close of the year. It would be very satisfactory to me if I had the power, of informing the Committee that there would be no excess beyond the estimates given in by Mr. Nash. I have in a former part of my evidence stated to the Committee, what measures I had originally ordered to be taken, in order to be able to ascertain as nearly as I possibly could, whether Mr. Nash was forming his conclusions on just grounds. It certainly did happen that in those instances respecting which estimates were made by other persons, the calculations did come very near to those which had been made by Mr. Nash. There had been no communication between the persons who made those estimates upon the same plots of ground as had been formerly estimated by Mr. Nash. But I am exceedingly sorry to say, that as the work has proceeded, it has been found that Mr. Nash's estimates were in many instances very much below what the real expense has been. I have taken every measure in my power to ascertain what will be the excess ultimately beyond Mr. Nash's original estimates. To the questions I have put, I have certainly not obtained what I consider entirely satisfactory answers. I should be very sorry, by any thing I may say, to mislead the Committee and the Public, but I believe that if in addition to the 748,000*l.* estimated by Mr. Nash, 150,000*l.* or 200,000*l.* at the utmost were added, the whole undertaking may be completed. But I really am giving information which I have received from others after making inquiries without end; and the result to which my mind comes, arises less from what I have been told than from the inspection of the Plans and Maps which have been laid before the Committee, and which will show that, for the money already spent or agreed to be paid, so much property has already been acquired. With respect to the expenses incurring and to be incurred at Buckingham Palace, it certainly would not be in the power of my department to find the necessary sums, if the expenditure were to be as large and as rapid as it hitherto has been; but I know that measures have already been taken by the Government to prevent any expenditure being incurred beyond what shall be ascertained to be what I may call the certain surplus of the land revenue. I therefore may very fairly inform the Committee, that as time will be taken for the completion of the building (such time as the funds of my department will require) there is no reason to apprehend that any further embarrassment will be incurred upon that subject.

Do you include in that surplus, the sum likely to arise from the general sale of the Crown property in Ireland?—I would state generally, that the transfer of the Crown property in Ireland to my department, will so much increase its funds, that this undertaking, I mean Buckingham Palace, will be very much facilitated; but I ought to mention, that although to the amount of between twelve and thirteen thousand pounds money has been derived from sales of quit-rents, we are not taking any active measures, and we do not intend at present to take any active measures for sales of property in Ireland. We have felt that it would be bad economy to force too much into the market at once; and it has also been very justly thought advisable that a correct rent roll, such as does not exist at present, should be immediately formed of what is the real property belonging to the Crown in that country.

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The Commissioners of His Majesty's Land Revenue have the power to sell any part of the hereditary lands of the Crown they please, for the purposes of the Act to which reference has been made during this day's sitting, have they not?—Certainly we have, under the sanction of the Treasury, the power; but there does not exist at present any intention on the part of the Government to hasten sales in Ireland for the purpose of expediting the completion of Buckingham Palace.

Martis, 20° *die Maii*, 1828.

The Right Hon. *Charles Arbuthnot*,
a Member of the Committee; again Examined.

YOU have employed Mr. Burton a good deal in the works in the Park; have you had reason to be generally satisfied?—I will state to the Committee the circumstances under which Mr. Decimus Burton first came to be employed in my department. I had not known that such a gentleman existed; but having seen in the Regent's Park, and elsewhere, works which pleased my eye, from their architectural beauty and correctness, I made inquiries as to the name of the architect, and I was informed that it was Mr. Decimus Burton. Feeling that it was open for my office to employ any architect who, in our opinion, would be likely to perform the work entrusted to him satisfactorily for the public, I sent for Mr. Burton, and desired that he would prepare designs for the erection of Lodges at the different entrances into Hyde Park. I of course explained to him what the general object of the Government was in making these improvements, but I left it to him to make designs such as seemed to him the most suitable for the purpose; and I begged that he would bring them to me as soon as they were completed. It may not be necessary now to inform the Committee, which of these Mr. Burton first brought to me; but I will generally state, that he gave designs for the Lodges at Cumberland Gate, at Grosvenor Gate, at Stanhope-street Gate, at the entrance into Hyde Park, and also for the Arch, such as it now exists, at the top of Constitution Hill. He has likewise prepared other designs; one for a new lodge and gates at the Knightsbridge entrance into Hyde Park, and another for a lodge and gates to be erected hereafter at Bayswater. Mr. Burton showed great anxiety to meet the wishes of the Government, and most readily undertook to make such alterations as the noblemen and gentlemen, to whom they were shown, thought desirable. The works speak for themselves, and it is for the Public to decide on their merits. For myself, certainly, I must say that I approved of them, or I should not have recommended them to the Government. But upon one point in particular I should feel that I was acting unfairly by Mr. Burton, if I did not say that in my opinion he really stands pre-eminent in adhering to his estimates. With regard to those which he has made for works in the Parks, it will be seen from a return now in the hands of the Committee, how very rarely they have been exceeded. Where there has been any trifling excess, it is to be accounted for by orders subsequently given to him; and by reference to the accounts, it will be found that in almost every instance the work has been executed for something under what he had estimated would be the cost. I must observe also, that in some instances his estimates have come officially before the Office of Works, and that, after being examined by gentlemen in that department fully conversant with such matters, it has been stated to me, that his estimates were drawn up most accurately and most ably. I have felt it my duty

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to give this testimony in favour of Mr. Burton, because, in addition to my opinion of him as a young architect of very considerable merit, I do feel that it would be satisfactory to every body who may employ him, to have the certainty, as I have had, that his estimates may be thoroughly depended upon.

In addition to the expenses, mentioned by you upon a former occasion, which have attended Carlton House improvements, and those of St. James's Park, namely, the 32,270*l.*, is there not an additional immediate expense for the redemption of the Land Tax?—Yes, to the amount of about 20,000*l.*; but it is to be borne in mind, that as a set-off against the expense of buying up the land tax, a greater rent is received from the houses on that account.

Was there any particular reason that induced Government to purchase the land tax at that time?—Under the authority of the Act of Parliament it had been, for several years before I came to the office, the practice of our department to buy up the land tax whenever occasion permitted it.

Was there not a favourable opportunity for doing it then?—Certainly; all the works then to be undertaken so far gave a favourable opportunity as to make us aware that by letting the ground on building leases, we should get a return in rent for the money laid out. I may in addition say, that in this instance as in all other improvements connected with buildings, this tax would have been increased upon us if we had not bought it up previously to the houses being erected.

As to the house in the Green Park, built for the Deputy Ranger's Lodge, what is the term of the lease under the Crown of that?—For the life of Lady William Gordon.

Are you aware at what period that lodge, with the garden round it, was taken out of the Park?—I cannot say, but I am certain that it has been taken out for a great many years; for I recollect, when a child, walking in the Green Park, and the house and garden existed then as they are at present.

Was it not taken out during the reign of his late Majesty?—Yes, during his late Majesty's reign.

Who is the Deputy Ranger?—Colonel Townshend; Lord Sydney is the Ranger.

Do you not conceive that the throwing this space of ground, now inclosed for the Deputy Ranger's garden, into the Green Park, would be a great advantage to the Public, as well as to the appearance of Piccadilly?—Every one must be aware that the house and line of trees in Piccadilly, throw a gloom over that part of the town, which would indispose the proprietors of the ground immediately opposite to go to the expense, as leases are out, of erecting houses of that size and magnitude which, were it not for this circumstance, it would probably be their interest to have. With regard to the interior of the Park, I certainly cannot help saying that if no house existed there, and if the garden were thrown into the Park, it would be an additional accommodation; and it would be an ornament to the Park.

Have Lord or Lady William Gordon ever paid any rent?—About 66*l.* a-year.

Has the Draining which has lately been done in the Parks, answered the purpose of improvement which was expected?—As to the buildings which have been erected in the Parks, they must necessarily be objects of criticism, and as every one decides upon their merits or demerits according to his own notions of taste, it would not be in my power to take upon myself to declare that the purpose intended has been effected, though upon the whole I should hope that those buildings have given satisfaction. But with regard to the ground-works, I hope I may venture to say that both in the Regent's Park and in Hyde Park the improvement (great as my expectation had been) has been greater than I ever contemplated; I know that the herbage is so improved since the draining has been executed, that the quantity of cattle kept in the Parks has been very largely increased; and I understand that persons belonging to the Parks, who, from not being aware of the extent to which improvement might be effected by draining, had originally looked at all that was going on with alarm and apprehension, have since come to my Office, and declared, that both the cows and the deer, and indeed all the animals put in to depasture in the Park, thrive much more than they ever did before, and that the number of them which can be kept over the same extent of herbage has greatly increased.

How many head of deer?—I cannot tell, the management of the deer being under the Ranger.

What was the original estimate for the Bridge across the Serpentine in Hyde Park,

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Park, and the actual expense?—The original estimate for the Bridge was 36,500*l.*; but it may be as well to make known to the Committee the whole course of the proceedings respecting the Bridge. When I had the honour of waiting upon His Majesty with the Plan of the intended improvements in Hyde Park, I did not presume to propose to His Majesty, that the part now open to the Public, going from Cumberland Gate down to Kensington Gardens, in the line of the Uxbridge Road, and so round by the side of the Gardens till you come to the Serpentine River, should be laid open for the convenience of the Public; but on showing the plan to His Majesty, I certainly did venture to draw His attention more particularly to that part of the Park. His Majesty immediately said, that it was His anxious desire that the whole of the Park should be opened for the convenience and accommodation of the Public; and the more completely to effect this object, He gave directions that measures should be taken for opening a communication across the Serpentine by a Bridge, so as to connect the two sides of the Park together. Great difficulty was subsequently experienced in ascertaining how this object could be best effected. The first idea, was to leave the wall which terminated the Western end of the Serpentine, and merely to throw a Bridge over from one side to the other, applied, as I may say, to the wall; but upon farther consideration, and upon communication with those who were the most competent to give a good opinion on the subject, it was very generally thought that such a mode of passing over the Serpentine would have a very awkward and unsightly appearance. A bridge, such as I have described, could not have been erected, without the wall (if it were left) being seen underneath the bridge; and this really did seem so preposterous and absurd, that that first idea was abandoned. Mr. Rennie, as a very competent person for the undertaking, from his talents and experience, was sent for to Fife House. He was directed to give in a design for a bridge, accompanied with an estimate of what the cost would be. The wall was to be taken away, and the water in Kensington Gardens was to be extended up to the Bridge; but the respective levels of the two pieces of water, above and below, were to be left as they then were, and the water from the upper part was to be brought, by a cascade, through the arches. This was at the time agreed upon; and at present I have in my office a drawing of the Bridge with the cascade underneath. I believe that I was the person who, as the work was in progress, desired Mr. Rennie to inform me, whether this cascade would flow in summer as well as in winter. His answer was, that he had very little hope of the water being sufficient to give any cascade, except in times of heavy rains. I certainly thought that we should cover ourselves with ridicule if we were to have a bridge with a dry cascade below it. I then, after communication with Lord Liverpool, directed Mr. Rennie to ascertain what would be the expense of bringing the two pieces of water, above and below, to the same level, so as to have a continuous piece of water, such as we see at present. Mr. Rennie did imagine that the expense would not be great; but I am sorry to inform the Committee, that, from various circumstances, and from some, I must say, over which he could not have any control, the expense of this, and of some of the other works connected with this portion of our improvements, has very greatly exceeded the amount of his estimates. I have papers with me, which, with the permission of the Committee, I will read, and then give in. These will enable the Committee to understand what has been the cause of the very great expense which has been incurred, and they will explain every circumstance relating to the Bridge, from its first commencement until its final completion. Before I read the papers, I would merely observe to the Committee, that one very great additional expense arises from the state in which the water in Kensington Gardens was found upon examination. It will be in the recollection of the Committee, that the cleansing of the Canal in St. James's Park cost about 4,000*l.* That expense, large as it appears, was absolutely necessary; for in dry weather there was so fœtid a smell arising from it, that in the opinion of physicians who were consulted, the health of that part of the Metropolis might be very seriously injured if the mud and filth were not removed. Certainly the water in Kensington Gardens, however bad it might be, would not be so obnoxious, on account of its position; but I must inform the Committee, that various sewers emptied themselves into that water, and from the great length of time since it was cleaned out, such a mass of mud and filth had been collected, that sooner or later it would have been absolutely necessary to have gone to the expense of cleaning it out, even supposing that no bridge had been built, or that no improvements had taken place. I will now, with the permission of the

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Committee, read a letter which was written by Messrs. Rennie to my office, in answer to inquiries made as to the cause of the great excess of expenditure beyond the estimate.

Sir, London, 24th January 1828.

WE have to acknowledge your letter of the 29th December last, requesting to have a full and complete explanation of the sums that have been expended upon the Bridge lately erected over the Serpentine in Hyde Park, previous to granting any more money on account of the said work; we have accordingly examined with considerable attention the whole of the measurements, quantities and prices, and herewith beg leave to transmit, for the information of the Commissioners of His Majesty's Woods and Forests, the account in detail, which amounts to the sum of 45,464*l.* 3*s.* 9*d.* The probable estimate of the work which we sent in on the 14th of March 1826, as near as we could then foresee (which on account of the state of the works was extremely difficult to determine with accuracy) amounted to the sum of 36,500*l.* The causes from which the increase arose, we beg leave to explain as follows:

First.—When the Estimate in question was made out, no sum whatever was allowed for the sheeting, piling and preparation, which had been made according to the original intention of making a stone dam and over-fall under the Bridge, it not having been at that time decided to reduce the Upper and Lower Ponds to the same level; this amounted to the sum of 1,421*l.* and ought to have been added to the estimate.

Secondly.—The foundations of the piers and abutments were found to be unusually soft, and consequently it was necessary to carry them deeper, and to use a greater quantity of materials and labour, in order to make them substantial: the excess occasioned by this, amounted to the sum of 2,430*l.*

Thirdly.—In the original estimate, no pavement was calculated to be put on that part of the bridge intended for horses and carriages; this however was considered to be a great inconvenience, and was subsequently added, to give greater accommodation to the Public: the expense of this amounted to the sum of 316*l.*

Fourthly.—The Bridge is three feet wider than originally estimated, making an addition of 2,024*l.*; this has added greatly to the effect and convenience of the whole.

Fifthly.—The arches originally were only calculated at 40 feet span each, but were increased to 50 feet span each; a measure which the extreme width and irregularity of the Serpentine at this place rendered absolutely necessary: this amounted to 1,795*l.* 3*s.* 11*d.*

Sixthly.—The several sums at the latter end of the account, amounting to 977*l.* 19*s.* 10*d.*, are for the iron railing, making the roads to and from the bridge to unite with the present roads in the Park, together with watching the work. In the original estimate, it was expressly understood that no granite was included; the present is of a very superior kind, and worked in the finest manner. The formation of the roads beyond, as well the iron gates and railing at the entrance, were not included, as it was conceived they would be made hereafter by persons belonging to the establishment of the Commissioners; this however was not done, and it was deemed inexpedient to delay them any longer.

The quantities have been measured and checked with the greatest care; and the prices of the several kinds of work, by referring to the accounts, will be found as low as possible.

Upon the whole, therefore, we trust that the above will appear satisfactory; at the same time we are ready, and shall be most happy, to give any further explanation that may be required.

We are, Sir, your most humble Servants,

(signed) *George & John Rennie.*

Having given in this paper, I have now to state, that upon my return to office, I felt it desirable to have still fuller explanations than the Letter given in contained. We therefore called upon Messrs. Rennie to furnish us with further explanations; and now, with the permission of the Committee, I will read and give in the letter which was written by them to us; it is dated 16th February 1828.

Sir,

WE have to acknowledge your letter of the 13th instant, requesting to have the remainder of the accounts for the completion of the new Bridge over the Serpentine in Hyde Park and Kensington Gardens, together with the various other works of deepening, embanking, improving the form of the Serpentine, turfing and gravelling the banks, making and completing the roads over and to the bridge, and draining the banks; building the ha-ha walls round the Magazine, and the sundry other minor works connected with them. We herewith accordingly beg leave to transmit the whole of these accounts for the inspection of the Commissioners of His Majesty's Woods and Forests: they have been examined with considerable care, and both the measurements and prices have been every where corrected and adjusted with the greatest regard to economy. These accounts are six in number, together amounting to the sum of 13,048*l.* 19*s.* 7*d.* and are classed under the different heads, as follow:

First.—For making the embankments at each end of the Bridge to join with the walks in the Gardens and the roads in the Park, and amounts to 3,102*l.* These were not included in the

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the original estimate, as at that time the mode and style of the approaches were quite undetermined. The work itself was for the most part performed during the winter, when the days were short and the weather was bad; and in order to inconvenience the Public as little as possible, the earth was well punned and rammed to prevent slips; drains were introduced, the whole of the sides were sown with grass and the top was turfed, the roots of the trees were bricked out from injury and connected with drains, and the whole was finished in a superior style: for this, we trust that the prices will be found extremely reasonable.

Secondly.—For deepening the upper pond of the Serpentine and removing the mud therefrom, turfing the banks, building retaining walls adjoining the bridge, filling in the angle of the river, and making a new bank on the North side, this amounts to 2985 *l.*

Thirdly.—For raising the banks of the lower pond of the Serpentine, preparatory to uniting the two ponds together above and below the bridge, turfing the banks, gravelling the walks, bricking out the trees and making drains, rebuilding the lower wall at the end of the Serpentine, making new sluices and all the minor necessary works complete, amounting to the sum of 3,910 *l.* In the Spring of 1826, an estimate for a portion of these works and that in account N° 2, was made, amounting to 2,071 *l.* including the saving that would thereby have been made by omitting the overfall under the bridge. The works included in the above estimate was merely excavation and raising the banks; and would no doubt have been completed considerably within the sum stated, had they been undertaken in the commencement of the summer, as proposed; if, however, they had been undertaken at that time the Public would have been most materially inconvenienced; indeed, the Serpentine and its vicinity, which at that period of the year forms such a favourite resort, would have been intolerable, from the mud, and effluvia arising therefrom; it was therefore desired, and very properly, that these works should be deferred until the autumn, at a time when the Serpentine is not frequented by the Public; the consequence was necessarily that the work, by being performed in short days and bad weather, entirely, cost more than double what it would have done had it been executed during the summer. Before, however, the fine weather arrived, the Public derived the full advantage of the improvement, without any of the inconvenience resulting therefrom. Besides, however, the works included in the estimate, several others arose, which became necessary to render the whole perfect; among others, the walls and sluices at the lower end of the Serpentine were found to be so very defective, that they absolutely tumbled down, and it became necessary to rebuild them entirely from the bottom, and to make new overfalls and sluices. This work alone amounted to 1,233 *l.* The rolling and gravelling of the foot-paths, 265 *l.* Filling up the irregular and swampy cavities at the sides, and generally improving and beautifying the contour of the river, to 801 *l.* Moreover, the upper end of the river in Kensington Gardens, where the Bayswater stream enters, was so completely charged with the sewage of the adjoining populous district, and was so incumbered with filth and mud of every description, that although at first it was conceived that if removed to a depth of about eighteen inches to two feet, when the upper and lower ponds were united, would have been sufficient, yet, upon drawing off the water (and it could not be proved before, because, upon sounding, the mud appeared like water) it was found that if the original quantity only had been taken out, it would in a very short period require to be cleaned out again at a considerable extra expense, independently of the great public inconvenience which would have been sustained from the exhalation of the noxious and insalubrious vapours, which it was considered (and justly) so desirable to avoid; the extra occasioned by this, amounted to 1,200 *l.*

Fourthly.—For building the ha-ha walls round the Magazine, this work amounts to 1,772 *l.* and, according to our letter of the 7th of June 1826, was estimated at about 1,500 *l.* although at that time the ruinous state of the adjoining walls rendered it extremely difficult to state the amount with any degree of accuracy: during the progress of the work, however, it was found necessary to rebuild fully one-third more than that round the Magazine, which is included in the present account, and which, after all, corresponds very nearly with the original estimate.

Fifthly.—This account, amounting to 924 *l.*, was not in the original estimate, and includes the temporary offices and drains; the wooden bridge to keep up the communication with the Gardens during the removal of the bank; a fence round the premises during the progress of the work, and a temporary road for the conveyance of materials. The whole of these works, although not necessary for the contractors, were absolutely so for the convenience and advantage of the Public, in order that they might not be inconvenienced during the building of the bridge. The item of 182 *l.* for a temporary road across the Park, was made in consequence of the contractors not being allowed to bring their materials down the Drive; had this not been done, they would have been compelled to have carried all their materials round by the Kensington Gate, at an increased expense, which must in justice have been paid; so that this item was an absolute saving.

Sixthly.—This account is for making a drain from the Park-keeper's cottage, on the North side of the Serpentine to the lower end of it, in order to carry off the surplus water from the cottage. This drain was estimated at 360 *l.* in our letter of the 10th of October last, and the present account amounts to 353 *l.*

Upon the whole, therefore, we trust that the explanation of the accompanying accounts, as above given, will appear satisfactory; and when it is considered that they comprehend such a great variety of items, not generally included in these kinds of estimates, upon the whole they are tolerably near.

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The prices at which the work has been executed are as low as possible, consistent with the nature of the work; and the measurements have been checked with the greatest care: At the same time we are ready, and shall be most happy, to give every additional explanation that may be required.

We are, &c.

(signed) *George & John Rennie.*

I must observe to the Committee, that the original estimate for the Bridge was 36,500*l.*; the expense appears, for the reasons stated by Messrs. Rennie, to be 45,464*l.*; and in addition to that expense, which regards the Bridge alone, the sum of 13,048*l.* has been incurred for other works connected with the Bridge, but not belonging to the building of it.

Does that include the walls round the Magazine?—Yes; every thing rendered necessary by the measure just referred to. I would just add, that an engineer of great eminence (known probably to most of the gentlemen of this Committee) has seen the prices for which the Bridge has been built, and in his opinion the prices are most exceedingly reasonable and proper.

As it would be matter of great inconvenience to the Public, and as much mortification has been expressed on finding that gate under the arch not opened, will you explain the reasons why it has been shut?—It will be found stated in the last Report from my Office to His Majesty and both Houses of Parliament, that gates were to be placed for the purpose of granting to the Public the accommodation now referred to. Since my return to office, I have inquired why those gates have not been opened, and I find that until communication is had with the Lord Steward, it will not be in the power of my department to open that entrance into Kensington Gardens; these Gardens being under the particular care and management of the Lord Steward. It is, however, my intention to lose no time in seeing the Lord Steward on the subject; and I have every reason to feel satisfied that upon a proper understanding with him, no difficulty can possibly occur upon the subject.

What commission does Mr. Rennie receive for his works about the Bridge?—Mr. Rennie has not yet been paid his commission; he is to receive 3*l.* per cent upon his original estimate; but he is to receive nothing for the excess beyond the estimate.

Has your Office any power to interfere with the circular piece of water that is above the present termination of the Serpentine River?—My answer to that question must be, that Kensington Gardens are entirely under the care, management, and control of the Lord Steward. Indeed, with the exception of the Government having thought it necessary to equalize the level of the piece of water in Kensington Gardens with that of the piece of water called the Serpentine River in Hyde Park, we never have interfered, nor have we any right to interfere with any thing relating to the Gardens.

Has the Lord Steward any control over any other portion of the Parks or Palaces?—The Lord Steward has under his care and management all the Gardens belonging to the Palaces; the Royal Gardens, every where, are under his management.

What was the original reason for building what is called the Parliamentary Mews, the mews near the Sessions-house?—When Lord Goderich was Chancellor of the Exchequer, he frequently mentioned to me, that many persons in the lower part of the town complained of the impossibility of getting stabling within a moderate distance of their houses; similar complaints had also been made to me; and after the subject had been mentioned to me by Lord Goderich, upon various occasions, he desired that we would make inquiries, who were likely to want stabling in that part of the town, and that we would report to the Treasury upon the subject. I must here say, that with regard to stabling, the same thing very much occurred, as we have since found, with respect to the site at Carlton House; numbers applied for stabling, and to such an extent, that I thought it would be absolutely impossible to make a mews sufficiently extensive to meet the numerous applications. The Report which we made to the Treasury was founded in great measure on this latter circumstance; and upon that Report we were directed to procure a design for a mews in the situation already referred to, with an estimate of the probable expense of such a building. In the progress of this undertaking great difficulties were experienced, from the Dean of Westminster and the Commissioners for the improvements of that part of the town: they objected to have any building erected so near to the Abbey, unless it was

made

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made very ornamental. After many communications between the Treasury and these Commissioners, it was ultimately decided that the building should be erected according to its present plan and elevation. It then remained for us to offer the stables to various persons in the neighbourhood; and certainly our expectations have not been realized so speedily as we could have wished. It will be seen by a Return lately presented to the House of Commons, how many persons have taken stabling. I have no doubt that if it is made known to the Public, and I have directed that it should be made known, that there is yet sufficient stabling left for several other persons, and that it may be taken on lease for a term of years, no great time will elapse before the whole of the remaining portion will be taken. I ought here to observe to the Committee, that in addition to the considerable expense incurred in consequence of the Dean, and the Commissioners for the improvement of Westminster, urging, and indeed insisting, that the building should be of a more ornamental nature than would have been requisite, if it had not been so near the Abbey, it will be seen by the Return to Parliament that there has been an excess beyond the estimate, to the amount of about 900*l.*; as this was the only time I ever discovered any material deviation from the amount of Mr. Burton's estimate, I called upon him to explain the causes of that excess. He informed me that the building would have been erected for 200*l.* or 300*l.* below the estimate, had it not appeared to Mr. Pilkington, who is the district surveyor in that neighbourhood, that each set of stabling was to be let to different householders, and on leases for terms of years; by the provisions of the Building Act he was bound, he thought, to consider each set of stables as a separate dwelling, and therefore, under the authority he possessed, he directed that the party-walls should be of a greater degree of thickness than had been intended; that they should be carried at every division through the roof of the building, and that they should be coped with stone. This caused the excess to which I have referred.

What has been the actual expense of these stables?—The expense for the building, as now completed, amounts to 35,263*l.*

At what rate per cent will be the return expected to be derived from them?—A little more than 3*l.* per cent. The fact, however, that the Crown property in Westminster will be, and indeed may be said to be already, very much improved by the additional accommodation thus afforded to its tenants, must not be overlooked in a calculation of this nature.

Had it not been for the objection of the Dean and Chapter, they could have been built at much less cost, and receive a much better return?—I believe that the original expense, as contemplated both by the Treasury and in my department, would not have amounted to more than 22,000*l.* had it not been for the circumstances above stated.

When you say, little more than three per cent, you suppose that they are entirely occupied?—Yes.

What is Mr. Burton's commission for building them?—Three per cent.

What right had the Dean and Chapter of Westminster, and the Commissioners for the improvement of Westminster, to object to any building which it was the intention of His Majesty's Commissioners of Woods and Forests to erect upon that spot?—The discussions upon the subject passed between the Treasury, and the Dean and the other Commissioners. Not having been present at any of these discussions, I cannot take upon myself to say precisely what passed; but I know that they did insist very strongly upon the impropriety of erecting any building in that part of the town, unless it were so ornamented as not to be, in their opinion, disgraceful to the Abbey, near to which the Mews was to be situated.

Does that Commission still exist?—That Commission does not exist; by a recent Act of Parliament its powers have been transferred to our Board.

Is it the intention of the Government to occupy any more of the ground on the Broad Sanctuary, or that neighbourhood, with buildings?—I would say, certainly not.

Is it intended to plant trees in the front of these stables?—It has been recommended to the Treasury, in a recent Report from my office, that an iron railing should be placed at some distance from the building; that the present wooden hoard should be taken away; and that there should be either grass or low shrubs in front of the building.

Were these stables at all under the direction of the Board of Works?—Entirely so. It was in consequence of Mr. Burton's estimates coming officially before that

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department, that the opinion was given to which I referred in the early part of my evidence as to the accuracy and ability with which they had been formed.

Were the works in Hyde Park also under the Board of Works?—They were not. The chief reason, I believe, why they were not so was, that I had recommended Mr. Decimus Burton to undertake them, and as he was not one of the established architects of that department, there were official difficulties against his being employed except under our own immediate direction.

Do you know if any trees have been cut down lately in the Bird-cage Walk?—No; I have known of none being cut down since I returned to office.

Is there any intention of erecting a new lodge, like those in Hyde Park, at the Stable Yard entrance of St. James's Park?—It had been my intention, when the improvements in Hyde Park and St. James's Park were put exclusively under the management of our office, to propose plans for lodges at all the gates of St. James's Park; and I merely waited until the funds of my department would progressively permit the Government to undertake these works. It is known that Mr. Nash has since given plans for works now in progress in St. James's Park, and I should not feel that we had any authority to propose any other works than those which belong to his plan, and which were sanctioned by the Treasury.

Is a new lodge at the Stable Yard included in his plan?—I should say certainly not.

The present Lodge, at the entrance by the Stable Yard, being a most unsightly object, do you not think it would be a great advantage that a new lodge should be erected in so conspicuous a part of St. James's Park as that?—It was originally my intention to propose a plan or a design for a new lodge at the place now referred to; I have always thought that the improvements in the Parks would be incomplete if a lodge were not erected at that point; and I shall very much lament if that part should be left in so unfinished a state.

Martis, 13° *die Maii*, 1828.

Mr. *Decimus Burton*, called in; and Examined.

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HAVE you been employed under the direction of the Office of Woods and Forests, in erecting some of the buildings in and about Hyde Park?—Yes.

From whom did you receive your immediate instructions?—I received written instructions from the Commissioners of Woods, through the medium of their Secretary.

What was the first work you undertook, in consequence of these directions?—Grosvenor Lodge; and about the same time I superintended the building of the two Lodges at the end of Stanhope-street.

Did you afterwards undertake the Entrance into Hyde Park, near the Duke of Wellington's house, and the Entrance into the King's garden?—If it is the desire of the Committee that I should state which of the works immediately followed those just mentioned, I beg to state that Cumberland Lodge was the building next completed.

Will you, then, give the Committee the order they came in?—The Stanhope-street and Grosvenor Lodges, as I have already stated, were the first; Cumberland Lodge the next; then the Lodge at Hyde Park Corner, with the entrance Façade immediately contiguous. The entrance Archway to the Palace gardens was commenced very shortly after; and I ought not to omit to mention a small work, a Boat-house on the Serpentine, which was built about the same time.

Were any estimates delivered for these works?—For all of them.

Have you those with you?—Yes, in a return which, I understand, has been prepared in the Office of Woods, pursuant to an Order of this Committee, and which will be laid before it in the course of a few days.—[*It is produced.*]

Did the expense of these works exceed the estimates?—In general, as will appear upon the face of this paper, the cost of these works has been rather below than above the amount of my estimates.

The Arch at the top of Constitution Hill was intended as an entrance to the King's garden, was it not?—It was so.

That design has been at present changed, has it not?—The original object of the design has, I have reason to believe, been frustrated, by causes unknown to me; but it would always have been necessary to have a Lodge at the entrance into the Green Park at the top of Constitution Hill, and for which purpose this

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Archway was planned, and to serve at the same time as the Lodge Keeper's residence for the Palace entrance. But Mr. Arbuthnot, who, I understand, is unavoidably absent to-day, will be enabled to give whatever further information the Committee may require on that subject.

Is the Reservoir within the King's garden so placed at present, as to prevent any entrance into the King's garden from the Arch?—As it is now placed, it certainly would not be a prevention to an entrance being made to the King's garden from the Arch.

It must still be an unsightly object, if that ever were made a great entrance, must it not?—Unless it were planted out, it would certainly be an unsightly object.

Is it contemplated to erect the Car, that is exhibited in the model, on the top of that Arch? [*The Model was here exhibited.*]—No estimate has yet been required for that portion of the design.

Was that model made before any part of the Arch was begun?—Yes.

Do you know to whom it was submitted?—The model itself, not being finished when the design was first approved, was not submitted at that time; but these drawings are exactly similar, and they were submitted to Lord Liverpool, Lord Farnborough, Lord Goderich, Mr. Peel, Mr. Herries, Mr. Arbuthnot, &c. at meetings held in Downing-street and Fife House, for the purpose of considering these and other Public Works. There were generally five or six noblemen and gentlemen at the meetings to which I allude.

There is also another model of this Arch, as connected with the other Façade in Hyde Park, is there not?—This is a part of the model alluded to; for convenience of removal, I separated it from the other portion, which shows the Façade on the opposite side of Piccadilly.

Do you generally make models before commencing Public Works or considerable works that you are employed upon?—I prefer doing so, and such is my general practice. Indeed, in all works of importance I invariably exemplify the design by a model

Do you know what line of road that Arch was intended to connect with or to conduct to?—I was instructed to make a design for an Entrance to the King's Palace from Hyde Park, with a public Entrance to the Green Park. I have a plan with me, which will show the connexion of that design with the proposed line of approach through the Palace gardens. This was the Plan originally submitted at Fife House. [*A Plan is produced.*]

There is a plan in agitation for altering the line of wall of the King's garden, to make Grosvenor Place of a more equal width in parts, is there not?—Such a plan has been proposed. There is a projecting part of Grosvenor Place, nearly opposite to Tattersal's stables, which has an unsightly appearance; and it is suggested that the angle could be removed at that point, without injury to the convenience or effect of the gardens.

By whom was the entrance at the angle of the King's garden suggested?—It was suggested, I think, at one of the interviews I have before alluded to; but I cannot recollect at this moment by whom.

Has the Road commonly called Rotten Row, in Hyde Park, been thrown off to the North, to give the King, when He comes to town, a better turn?—Upon referring to the plan of the road as it was originally, it will be seen that it was desirable to obtain an easier sweep from Rotten Row to the centre gateway of the Façade; this was effected by placing the entrance of Rotten Row a little more to the North, and by widening the gate in the post and rail fence.

Did you understand when you first made the designs for the Arch at the top of Constitution Hill, that His Majesty approved of the Arch as an entrance into His garden?—Certainly I acted with that understanding in making the first design, which was set aside. It having been suggested (at one of the meetings before alluded to) by several of the noblemen and gentlemen present, that it would be more respectful to His Majesty to have this Archway upon a scale and of a character more splendid than that of the Façade Entrance on the North side of Piccadilly, I was then directed to prepare a second design, which should embrace these objects. This second design received His Majesty's approval, and is in fact the one now acted upon.

Did you ever receive any written intimation to that effect?—It was so intimated in the written communication I received on that occasion.

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Stating that His Majesty approved of it; was it so?—Certainly. In confirmation of this, I would refer to my memorandum at the bottom of the design, and which is now produced before the Committee: "This design was returned from "the Commissioners of Woods, and with their letter, dated January 14th, 1826, "containing the communication of its being approved by His Majesty, to be "executed instead of the original design I submitted."

When do you conceive the Arch will be finished and completed?—It depends on the quantity of sculpture which shall be given to it. The Arch as a building will be finished in a month or two.

To what road will it lead now?—I have already stated, that I am not able to answer that question, as I have no further instructions on that point.

But there is a design, though not perhaps a certain one, of making it the entrance to Constitution Hill, is there not?—Yes, it has certainly been suggested.

But that would be rather awkward, would it not, from its position?—It would at once destroy the unity of my design. The Gate for the public on the top of Constitution Hill is intended, by this design, to be exactly central with the Eastern Gate of the opposite Façade, and the Royal Gate on the South side of Piccadilly with the middle arch of the Façade. The Committee are perhaps aware that the centre of the Western Gate of the Façade is opposite to the centre of Grosvenor Place.

Are they not now executing the sculpture on the top of that Arch?—This sculpture is not yet commenced; indeed the inclosure for the purpose is not yet ready.

Is the whole of the sculpture included in these estimates?—The whole of it, except the triumphal car at the top, for which I have not yet received instructions.

Is the whole of the sculpture included in this 34,982 *l.* 17 *s.* 2 *d.*?—Certainly.

Carving the entablature and ceiling of the Archway, does it include that?—The whole.

It is estimated at 2,699 *l.*; and the trophies and the bas-relief 5,965 *l.*?—Yes; the estimate for carving is 2,699 *l.*; the military and naval trophies, and the bas-relief in the attic, are estimated at 5,965. *l.* and the eight statues at 1,260 *l.*

Are the models made for these parts of the sculpture?—I have drawings of them here.

[*The Witness produced the Sketches of the Statues.*]

There are to be eight statues?—Yes; designed by Mr. Bailey, R. A. The proposed bas-reliefs are designed by Mr. Henning, whose drawings are also here.

Are they similar to those on the opposite Façade?—Yes, similar in character with those already executed on the attic of the Façade, but more in relief.

Are these designed by Mr. Henning?—Yes; these are designed by Mr. Henning, as well as the military trophies behind the columns.

Are you engaged in any other Public work at present?—Yes, the Mews at Westminster has just been completed under my superintendence.

What is the intention of that building?—I have always understood that there had been a great want of stabling for good horses upon the Crown estate in this neighbourhood, and I believe that from this circumstance originated the idea of appropriating part of the vacant ground in Princes-street for stabling.

Private stables?—Yes.

Whence is it called The Parliamentary Mews?—I am not aware of any grounds upon which it can be so called.

What has been the expense of the building of these Mews?—In a return lately made to an Order of the House of Commons, it is stated at £.35,263. 19*s.* 11 *d.*; that is, for monies already paid, 34,287 *l.* 17*s.* 6*d.*, and for monies remaining to be paid, 976*l.* 2*s.* 5*d.* My estimate was 34,357 *l.* 15*s.* 1 *d.*; which, I beg to observe, was framed with the understanding that the Mews should constitute one detached building, in which case party walls would not have been required to be built, which continue above the roofs. Afterwards, when it was determined to let off the several allotments on long leases, the provisions of the Building Act rendered it necessary that these should be built accordingly; and which being coped with stone, materially increased the expense. I would beg to add also, that the gross expense was greatly increased in consequence of its having been required by the Commissioners

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Commissioners for the improvement of Westminster, and by the Dean and Chapter of Westminster, that the exterior should be architectural, so as to conceal the object of the building.

The return at present is not at all an adequate one; what is the cause of that; it is only about 600*l.* a year?—There are several stables yet unoccupied.

What do you conceive would be the return as a per-centage for money laid out when the stables are all let?—Upon the whole estimate the per-centage would certainly be small, because at least 5,000*l.* of the expenditure was incurred for the external decorations to which I have just alluded.

What persons have taken the stables?—Those named in the Parliamentary return are, the Earl of Clare, Lord Farnborough, the Right Honourable Charles Herries, Sir Robert Harland, Mr. Kirkland, Mr. Wilmot Horton, Sir Alexander Grant, Mr. Milne, and the Honourable Mrs. Robinson.

You do not know what the income is?—The tenants pay 10 guineas per stall, and 12 guineas for each carriage-standing.

And there are coach-houses and stands for 35 carriages, and stalls for 71 horses at 10 guineas per stall; supposing the whole to be let, what would the income be?—£. 1,186. 10*s.*

Is it entirely finished?—Yes.

The 35,263*l.* includes all expenses attending it?—Certainly.

Are the Government to keep the stables in repair?—No, each tenant is bound to do so by his lease.

Are the tenants bound to keep the external walls in repair?—That also is a condition in their leases.

Is the external wall (which is decorated) and the entrance comprized in any of them?—The external wall is included, the entrance is not.

It will no farther be any expense to the Public?—The whole expense may be considered as now closed, with the exception of an annual payment of 30*l.* 15*s.* for insurance, and 54*l.* 12*s.* for the gate-keeper's salary.

Are they paid by the Office of Woods?—Yes.

For what term are the leases granted?—Where let to a Crown tenant, the lease is granted for a term co-extensive with the lease of the house to which the stable is to be attached; where let to a person not a Crown tenant, the lease is granted for seven years, determinable during that time by the tenant on his giving three months notice.

From whom did you receive your instructions to make these buildings of the Parliamentary Mews?—From the Office of Woods.

When was it commenced?—About the end of the year 1825.

Now what per-centage will it be, 1.200*l.* a year, and 35,000*l.*?—The return upon the actual expenditure will be nearly three per cent.

Is it in the contemplation of Government, do you understand, to make any more buildings on the space which is still unoccupied in that part?—I believe not. It is contemplated to inclose part of the vacant ground opposite to the Abby with an iron railing, and to lay out the interior as a lawn.

Have you any other buildings under your management and direction?—I am superintending the erection of a small building adjoining the Mews, intended as a Depôt for the stores of the Grenadier Guards.

To what sort of expense will that go?—About 1,500*l.*

You are building the Athenæum Club House?—I am the artichect for that building.

Why is the Façade of the Athenæum not to correspond with that of the United Service Club, on the other side of Waterloo Place?—The frontages are so different as to prevent a complete uniformity; but I must observe, that they might have been more nearly uniform, had the portico towards Pall Mall been omitted at the United Service Club. The very limited frontage of the Athenæum will not allow of its receiving a portico to correspond.

Is there to be a balcony towards Waterloo Place, and a portico at the Athenæum?—There is to be a continued balcony round the three sides of the building, and a colonnade at the entrance, towards Waterloo Place.

Are you building that by contract?—Yes.

In gross?—Yes.

Do you conceive that to be a good way of conducting any large building?—In my opinion it ensures greater certainty of keeping within a definite expenditure;

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ture; in that respect it is advisable; on the other hand, it holds out greater temptations to contractors to put in worse materials and workmanship.

Do you think, by your superintendence and that of the persons who are employed under you, you can prevent the contractors from slighting the work, and putting in inferior materials?—I certainly do not think contractors can be prevented effectually from slighting work, and putting in inferior materials, even with the most minute attention on the part of the architect and clerk of the works, if he should be inclined to be dishonest.

Upon the whole, which would you consider the better mode of building, contracting in gross, or contracting by prices?—Contracting by prices, certainly.

What was your reason, in the instance of the Athenæum, for preferring the contract in gross?—I was desired in that case, by the Committee of the Club, to obtain a contract in gross.

In the building of the Athenæum, are you restricted by Mr. Nash's general plan to make the rooms of any particular height?—Yes, there is a restriction in that respect; the windows, and in fact all the external levels of the buildings, will range exactly with those of the building opposite.

Were you restricted inconveniently as to these matters, in a way you would not otherwise have made the building?—I was obliged to alter the original plan in several respects.

Inconveniently, do you think, for the building?—It would have been inconvenient, had not the Committee of the United Service Club been induced to alter their plan as regards the heights of the stories and windows, according to the suggestions of the Committee of the Athenæum. Each floor was heightened, and the windows also.

You built many of the houses in the Regent's Park, did you not?—I designed and superintended the building of two of the villas there, the Marquis of Hertford's, and Mr. Greenough's.

Any in Cornwall Terrace?—In that and other instances, I merely gave the designs. In regard to the Marquis of Hertford's and Mr. Greenough's, as I before stated, I was professionally engaged as architect, to design, and also to superintend.

Did you build the great Building in the Regent's Park, which is in imitation of the Pantheon?—I designed and superintended the erection of that Building, which, however, varies too considerably from the Pantheon at Rome, to allow it to be deemed an imitation of it, whilst at the same time the total want of similarity in this building to the Colosseum at Rome, occasions its present name to be objected to.

Did you not wish to raise that building higher than it is at present?—The scale of the proposed picture required that the building should be higher than it is at present.

Do you not consider it would have been better for the appearance of the building?—As size and dimensions give importance to edifices, the appearance of this building would upon that principle have been more imposing, had the original scale been adhered to.

Why did you not build it higher, so many reasons concurring to make you wish it should be higher?—In an interview which Mr. Horner, the proprietor, and myself had with Mr. Nash on the subject, when submitting it to him for approval as the person under whom the Regent's Park was then being laid out, he objected to the size of it, on the ground that the building would, in his opinion, be too colossal for its situation in the Park.

Was that work built by the contract in gross?—No, it was built under a contract for prices, according to which the works were valued.

Was there not some mistake with regard to the level of the ground adjoining to that Entrance near the Duke of Wellington's house?—None whatever. In making my designs for Hyde Park Corner, it was always contemplated that Piccadilly, for a certain distance, should be lowered.

Martis, 20° die Maii, 1828.

Alexander Young Spearman, Esq. called in; and Examined.

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THE Committee wish to know in what way, and by what department, Furniture is supplied to the Public Buildings and offices?—Do you mean according to the present system.

Has any recent alteration been made in the system of supplying furniture?—Yes.

What was the system before, and in what does the alteration consist?—The system as it existed previously to the 5th of April last, with respect to those offices that were supplied through the Lord Chamberlain, was the following: a requisition was prepared in the office for which the articles of furniture were required, and that requisition, when signed by one of the principal persons in the office, was transmitted to the office of the Lord Chamberlain. In the office of the Secretary of State for the Home department the Under Secretary, I believe, almost invariably signed the requisitions; in the Foreign department, sometimes the Under Secretary, sometimes the chief clerk. In the other offices, the requisitions were usually signed by the chief clerks, or other persons authorized for that purpose. The requisition, when received at the Lord Chamberlain's office, was sent to the tradesman appointed by the office to supply the articles; by that tradesman an estimate was made of the probable expense of the articles, and the order was then given by the Lord Chamberlain's office, for the preparation and delivery of them. This was the system which did exist, as to the mode of making requisitions for furniture, and the manner in which the orders were issued from the Lord Chamberlain's office, until towards the close of the year 1826, when, in consequence of an order of the Treasury, the requisitions and estimates were submitted by the Lord Chamberlain to that Board, before the final authority was given for the supply; and I believe that, generally, the price was stated upon the requisition by the tradesman, before it was signed by the person who addressed the requisition to the Lord Chamberlain's office.

To what offices and public departments did this mode of furnishing and supplying furniture extend?

The House of Lords.
The House of Commons.
The Speaker's House.
The official House of the Clerk of the Parliament.
The official House of the Assistant Clerk of the Parliament.
Mr. Ley's House.
Mr. Rickman's House.
Mr. Whittam's House.
The Parliament Office.
The Office of the Secretary of State for the Foreign Department.
D° - Home Department.
D° - Colonial Department.
The official House of the First Lord of the Treasury.
The official House of the Chancellor of the Exchequer.
The Court of
Chancery,
King's Bench,
Common Pleas,
Exchequer,
Vice Chancellor,
at Westminster.
The New Palace Court.
The India Board.
The Board of Trade.
The Council Office.
The State Paper Office.
The Almonry Office.
The Augmentation Office.
Whitehall Chapel.
The Tower.

State in what mode the accounts for the supply of the furniture were controlled and checked?—The tradesmen's bills were made up quarterly, and laid before the proper officer of the Lord Chamberlain's department; they were by him compared with the estimates and requisitions upon which the orders had been made, that he might see that no article had been introduced into the bills which had not been previously required by the requisitions, and in order that he might take care that the charges did not exceed the amount of the previous estimates, or if they did, that a sufficient reason might be given to account for the excess. The quarterly account of all these expenses was sent to the Treasury by the Lord Chamberlain, and by the Treasury it was referred to the Auditor of the Civil List; by the Auditor of the Civil List it was examined with the entries made in a book kept in his department, which contained copies of the original requisitions, and if it were found that the amount of the bills did not exceed the amount of the original estimates, and that no articles were charged for which were not in the

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previous orders, the castings and computations of the accounts were checked, and if found correct, the bills were sent back to the Treasury with a statement prepared by the Auditor of the Civil List, and the money was thereupon issued for paying the several bills.

Were these bills ever brought under the inspection of the office under whose authority the furniture was ordered?—I believe not.

Was the person who ordered the furniture always made aware of the estimate of the cost of it before he fixed his signature to the order?—I believe he generally was.

Was it so invariably?—I believe almost always since September 1826.

At what time was a change contemplated and ultimately made in this mode of supplying the furniture?—About the month of September.

Are you aware of any grounds on which it was deemed necessary to make such a change?—The grounds are stated in the Treasury Minute of the 10th of September, of which I have a copy in my hand.

Be so good as to read it:

Copy of TREASURY MINUTE, dated 10th September 1827.

MY LORDS have under their consideration the system on which Furniture is supplied to the two Houses of Parliament, and to the several Public Offices and Courts of Law, by the Lord Chamberlain's Department, the expense of which does not form part of the charge upon the Civil List, but is provided for by annual grants of Parliament.

The annual expenditure for this service, which is very considerable, has been very much increased of late years, and My Lords are impressed with the belief that it would be attended with beneficial effects if the existing system for the supply of the furniture for those public departments were inquired into, with a view to place it upon a more economical footing, by exciting competition among the several tradesmen, and by investigating more strictly than appears hitherto to have been the case, the authority under which the requisitions have been made, and the necessity of providing in all cases articles of the exact description required. My Lords having reason to believe that the duty has hitherto been left too much in the hands of inferior persons in the different departments in communication with the tradesmen who supply the articles; My Lords therefore request that Lord Mountcharles, Lord Eliot and Mr. Fitzgerald, will be good enough to undertake this inquiry, as a Committee of this Board, by the examination of the accounts of former years, and of the several persons in the office of the Lord Chamberlain, or of any other department, who may have any share under the present system in the direction or control of this expenditure, in order that they may thereby be enabled to submit to the Board their view of the best mode of conducting it with the utmost possible economy in future.

Acquaint the Lord Chamberlain with the directions given; and desire that His Grace will instruct his officers to give every information and assistance that the Committee of this Board may require, and to order all tradesmen employed in the supply of furniture to the Public departments under His Grace's authority, to attend upon the Committee of this Board appointed to make this inquiry, whenever they may be required to do so, and to furnish all the information that may be demanded of them.

What took place in consequence of that direction?—That Committee met a considerable number of times; they took evidence from various persons upon the subject, with a view to ascertain exactly the system followed in the Lord Chamberlain's department, and in order also to learn under what regulations the Ordnance department and the Navy Offices were supplied. The Surveyor General of Works was examined, to ascertain in what manner he conducted that part of the service entrusted to him. Mr. Lack, the Assistant Secretary of the Board of Trade, was also examined upon the subject of the furniture of that office; and Mr. Banting, the tradesman principally employed in supplying the furniture ordered through the Lord Chamberlain's office. In consequence of the proceedings of the Committee, a Minute was made on the 15th of January 1828, by the Board of Treasury; copy of which I will now read:

Copy of TREASURY MINUTE, dated 15th of January 1828.

MY LORDS have under their consideratiion the system under which Furniture is supplied for the several Public Offices and Courts of Law, which subject has been investigated by a Committee at this Board. My Lords are satisfied, by the examination of the several persons who were called before the Committee, that the present system of supplying furniture to the Public Offices and Courts of Law through the Lord Chamberlain's department is very defective; because there does not appear to be any sufficient check, either upon the quantity and description of the articles demanded, or upon the charges made by the several tradesmen who supply them. It appears that no discretion is exercised in the Lord Chamberlain's office, either with respect to the quantity or description of the several articles demanded by the offices, the duty of the Lord Chamberlain's department being considered to be merely

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that of receiving the requisition, and forwarding it, without observation or inquiry, to the tradesmen selected by that department to provide the articles. It appears further, that the bills of the tradesmen are, for the most part, not submitted for examination and check to the persons who have received the furniture, and that the articles of furniture are not inspected by the Lord Chamberlain's officers; so that in fact there is no adequate check whatever upon the charges of the tradesmen, as compared with the articles furnished. My Lords can have no doubt that this very imperfect system has conduced in a considerable degree to the large expense which has been incurred of late years in furnishing those public offices supplied through the Lord Chamberlain's department; nor can their Lordships suppose but that a more vigilant and effectual control, both over the quality and quantity of the articles required, as well as over the prices of the tradesmen, will tend to produce some material saving in this branch of the public expenditure. The Committee have found that a much better system prevails with respect to those Offices which are supplied through the intervention of the Board of Works; a discretion is exercised by the Surveyor General, as to the quality and quantity of the articles required, and the tradesmen's bills are carefully examined by the persons who inspect the articles of furniture. The effect of this system is to produce much greater economy in the expenditure. My Lords are of opinion, therefore, that the whole of the Public Offices and Courts of Law, hitherto furnished by the Lord Chamberlain, together with any official houses, the charge of furnishing which is not defrayed out of the Civil List, should in future be supplied with furniture under the direction of the Office of Works; and they desire that Mr. Frankland Lewis will confer with Colonel Stephenson upon the subject, and then submit to My Lords the regulations under which this may most satisfactorily and most economically be performed by that office; when My Lords will make the necessary communication to the Lord Chamberlain and the several departments hitherto supplied by that office.

Transmit copy of this Minute to the Surveyor General of the Board of Works; and request he will consider the same, and report to My Lords such observations as he may have to offer thereon.

Was that the latest direction of the Treasury on the subject?—No; here is a Minute on the 22d of February, which contains the regulations for giving effect to the principle laid down in the Minute which I read last:

Copy of Treasury Minute, dated 22d February 1828.

My Lords read their Minute of the 15th January last, expressing the opinion of this Board, that all furniture required for certain Public Offices, as well as for official houses attached thereto, and the expense of which is not defrayed out of the Civil List, should be provided under the direction of the Surveyor General of the Office of Works, and not by the Lord Chamberlain's department, as heretofore.

My Lords have now under their consideration the regulations which it may be expedient to adopt, and which regulations should in their opinion be applicable to the supply of furniture to the several departments and establishments, and to the official houses occupied by the individuals attached thereto, and that these regulations should commence from the 5th April, 1828; viz.—

House of Lords.
House of Commons.
Speaker's House.
Court of Chancery at Westminster.
— King's Bench - D°
— Common Pleas - D°
— Exchequer - - D°
Treasury.
Secretary of State, Home Department.
D° - - - - Foreign - d°
D° - - - - Colonial - d°
India Board.
Council Office.
Board of Trade.
State-Paper Office.
Auditor of the Land Revenue.

First.—The Surveyor General of Works should cause a correct inventory to be taken of all furniture now in use in the several Public Offices or departments, and in the official houses attached thereto.

Secondly.—That once in every year, or oftener if necessary, the furniture should be examined with the inventory, and the inventory corrected; and the individuals in charge of the furniture in each public office will be held responsible, and will be required to account for all the furniture left in their charge, according to the last inventory.

Thirdly.—That whenever any articles of furniture are required to be repaired, or any new articles provided, a requisition is to be addressed to the Surveyor General of Works, signed by a principal officer or chief clerk of the department for which the furniture is required, specifying the description of articles required; and if the same shall appear to be of the usual and accustomed description, he will cause the same to be provided; but if the articles required should not be of the usual and accustomed description, the Surveyor General will transmit an estimate of the probable cost of providing the same, to this Board, and will not take any measure for procuring the same until he shall have received their Lordships' authority for so doing.

Fourthly.—That the articles of furniture to be supplied to the offices be plain and substantial, adapted for official purposes.

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Fifthly.—That no expensive woods be used in such furniture, and that the same be made of deal, wainscot, or mahogany.

Sixthly.—That no curtains or expensive ornamental furniture be provided for any office rooms.

Seventhly.—That carpets, matting, floor-cloth, &c. and all bell-hanging and locksmith's work, shall be executed under the superintendence of the Office of Works.

Eighthly.—That whenever old furniture or other articles shall be deemed unfit for further use, the same to be returned into the store of the Surveyor General, for the purpose of being sold, and the proceeds to be credited in the public accounts of the office; and that no description of furniture be taken or considered as a perquisite of any person whatever.

Ninthly.—That a separate account be rendered of the furniture supplied and repaired for every public office or department, and that a general quarterly account be sent to the Lords of the Treasury, for approval and payment.

Tenthly.—That the Surveyor General of Works do employ such tradesman in providing this furniture, &c. as he may think fit; and that those tradesmen be not considered as having any exclusive privileges or right to furnish the supply, the Surveyor General having full power to change them as often as may be thought expedient.

Lastly.—That copies of these Regulations be transmitted to the Heads of the several departments before specified; and that they be requested to address their requisition to the Surveyor General, in conformity to the article N° 3.

Transmit copy of the aforegoing Regulations to the Surveyor General, for his information; and authorize him to employ a professional clerk, at a salary of 150*l.* per annum, in conducting this branch of business: And acquaint him, that the expense of providing furniture for the above offices will for the present, as it has been heretofore, be defrayed out of Civil Contingencies; and authorize the salary of the professional clerk to be charged to the same account.

Acquaint the Lord Chamberlain with the departments and offices which from the 5th April 1828 are to be provided with furniture, under the direction of the Surveyor General of Works, and not by His Grace's department; and desire he will give directions to the officers of his department, not to receive any requisition, or to give any orders for the supply of furniture, &c. for those departments and offices, upon requisitions sent to His Grace's department, after that day.

Have you a statement of the expense, in the last four or five years, of furniture supplied to the several offices?—I have "An Account of all Sums paid in the Department of the Lord Chamberlain of His Majesty's Household, for Furniture, &c. for Public Offices, in three years ending 5th of April 1827, distinguishing the office, the amount paid for each year, and the names of the tradesmen employed." In this account it is stated that the expense for the office of the Secretary of State for the Home Department, was, in the year ended 5 April 1825, 262*l.*; in the year ended 5 April 1826, 1,553*l.*; and in the year ended 5 April 1827, 468*l.* The expense for the office of the Foreign Secretary of State, including the residence of the Secretary of State, was, during those three years, 4,061*l.*; 6,608*l.*; and 5,373*l.* The expense of the office of the Colonial Secretary of State, during the same years, was 3,638*l.*; 1,158*l.*; and 653*l.* The expense of the India Board was, during those years, 612*l.* 4*s.*; 696*l.* 5*s.*; and 598*l.* 18*s.* 10*d.* That of the Council Office, 164*l.* 1*s.* 5*d.*; 30*l.* 9*s.* 8*d.*; and 142*l.* 10*s.* 2*d.* The expense of fitting up the Board of Trade was 5,374*l.* 2*s.* including all the new furniture.

State what expense has been incurred for the Treasury, under another system, in the same three years?—In the same three years, 483*l.* 585*l.* and 297*l.*; that is, about 1,200*l.* or 1,300*l.* in the three years.

Are you aware of any charge in the Lord Chamberlain's Office, in passing the bills for furniture so supplied, by which the expense is enhanced?—There is a fee in the Chamberlain's Office, of 1*l.* 1*s.* on every 100*l.* paid by the tradesmen on the amount of their bills.

Is that fee paid to the department which superintends the execution of the order?—The amount of the fees is divided between two of the individuals in the office, one of whom is Mr. Mash, the principal clerk and comptroller of the department, the other, Mr. Browell, the superintendent of the payments.

Then, under that system, the persons having charge of superintending the work and an interest in proportion to the amount of the bill?—The advantage derived from that commission, of course, depended on the amount of the bills.

Under the present system, all that fee or charge must entirely cease?—It is quite at an end.

Has the Treasury had any experience of the superior advantage, as yet, of the new practice, as compared with the old?—I apprehend it has been in execution too

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too short a time to allow of any fair statement being at present made upon the subject.

What offices are left under the management of the Lord Chamberlain?—None; nothing but the Civil List; every thing has been removed in the nature of furniture, but the Civil List.

Do the Royal Palaces, and all buildings of that description mentioned under the Civil List, still remain under the superintendence of the Lord Chamberlain?—Under the superintendence of the Lord Chamberlain.

Who were the parties who furnished the furniture for the Chancellor of the Exchequer's house in Downing-street?—That portion which was furnished by the Public, was furnished under the direction of the Lord Chamberlain's Office, and will in future be supplied under the direction of the Office of Works.

Is the greater part of the furniture in that house private property?—The greater part of the furniture in that house is private property.

Will you state what part is considered private, and what is furnished by the Public?—I believe all the fixtures of the house, and the furniture in the rooms used as offices, are public property; all that is usually considered furniture in private houses, is provided by the person occupying the house.

Is all this furniture provided by the same tradesmen?—The principal part of the furniture paid for by the Public, for these offices or official houses, has been supplied by France and Banting.

Is it understood at the Treasury that the change of system is likely to be productive of considerable saving in this branch of the expenditure?—I believe certainly.

Are you enabled to state in what way the furniture supplied for these Public Offices was accounted for, and what persons were responsible for the due care of it, and for its being forthcoming at all times?—It was stated by Mr. Lack, the Assistant Secretary of the Privy Council for Trade, that in the office of the Board of Trade, the housekeeper laid claim to and received all worn-out furniture as the perquisite of her place. I believe the old worn-out furniture in most other offices is claimed and received pretty much in the same way, no account of the produce of it ever having been brought to account.

In what way was furniture to be considered as old and worn out?—That I cannot say.

Is it believed that sufficient control was exercised in that particular?—I believe it was supposed that sufficient control was not exercised.

Under the new system, is that more correctly provided for?—The old furniture must be returned into store, and the proceeds upon its being sold are to be carried to the credit of the Public.

Do you know if any other perquisite was paid, except that which you have mentioned, upon the payment or examination of the bills in the office of the Lord Chamberlain?—None, that I know of.

Are you aware if any system of competition was established, with a view to the provision of those articles of furniture, or if the prices were left entirely to the tradesmen?—I believe no competition whatever existed.

Was any check exercised upon the prices of the tradesmen?—I do not believe there was.

So as to ascertain, by comparison with other tradesmen, if the charges were too high or too low?—No, I do not believe there was.

Have not some of the offices, such as the Customs and the Excise, the power of ordering furniture for themselves?—Yes, whatever is required by those offices is provided for by the authority of their own Boards.

Do you know if that amounts to any considerable expense?—No, I do not; I apprehend it must be considerable, for the buildings which they occupy are very large.

Does the Treasury exercise any control over them in that respect?—Their contingent accounts are sent to the Treasury, for sanction.

With regard to the Post-office, the accounts will not be sent to the Treasury until the building is finished?—I should suppose that in furnishing such a large building, the expense of which must be considerable, that the authority of the Treasury will be asked for.

Are you aware if the authority of the Treasury was asked for, previous to furnishing the new Custom House?—I really do not know.

Have you any means of knowing what the profit was to those officers who received the per-centage upon the amount of the bills to be paid?—It was stated

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in an application they made to the Treasury, or rather which was made by the Lord Chamberlain in their behalf, and I believe it amounted to about 120*l.* a year. The application was refused.

Was the 120*l.* paid to each, or to both?—I believe 120*l.* or 130*l.* to each. The application was made to the Duke of Wellington and Mr. Goulburn, who did not consider they were entitled to any such compensation. The fee, however, had existed for many years. The fee itself was brought under the consideration of the Treasury some years ago, upon the occasion of an application having been made for an increase of the salaries of the officers, which I believe was not granted.

Jovis, 22° die Maii, 1828.

Thomas B. Mash, Esq. called in; and Examined.

T. B. Mash, Esq.

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WHAT office do you hold in the Lord Chamberlain's department?—Comptroller.

Are the bills for furniture checked by you?—No, by the Inspector.

Who orders the furniture in any of the Public Offices?—The order is given by me, after having received the estimate, signed by the principal officer of the department making a requisition, and that is transmitted to the Treasury for their sanction before the order is given. The tradesman is directed to take his instructions from the officer or the person requiring the furniture, and to make his estimate accordingly; and the amount of that estimate, with the particulars, is signed by the officer of the department making the requisition, and is delivered to the Lord Chamberlain's office, and submitted by the Lord Chamberlain to the Lords of the Treasury. On its being returned to the Lord Chamberlain's office by the Treasury (sanctioned and approved of) the order is then given to the tradesman to furnish the article.

Is there any price named by the tradesman?—Yes, there is.

Is the furniture uniformly ordered from the same tradesman?—Yes, I believe the tradesman is considered as appointed to that particular service; one tradesman to the Offices, and another to the House of Lords and the House of Commons.

Is there any formal appointment of those tradesmen?—Yes, they have been formally appointed by the Lord Chamberlain, as King's tradesmen.

Under hand and seal?—Yes.

Is there any fee paid by them for that appointment?—The fee altogether, with the stamps, comes to about seven pounds for a tradesman not employed, and about eleven pounds for a tradesman who is employed.

Are there tradesmen appointed who are not employed?—Yes, they get it merely for the feather, for the putting up of the King's Arms.

How many upholsterers are there appointed by the office, who are employed?—There are not more than five or six employed.

Are there appointments separate, for the furnishing different offices or different palaces?—The appointment is not particularly made out for that service, but they have generally been nominated to do it, and have done it for years; for instance, the house of France and Banting have had for years the supplying the Public Offices; the house of Elliott in Bond-street have had the supplying the Houses of Lords and Commons.

Does the Lord Chamberlain feel himself under any obligation not to employ any other tradesmen?—No, certainly not,

Does he ever employ others?—I do not recollect an instance.

To whom is the fee paid by the tradesman on receiving his appointment?—That is divided between the Secretary of the Lord Chamberlain and the first and second clerk of the Lord Chamberlain's office, and the messengers; on a fee of six or seven pounds, 3*l.* 4*s.* 6*d.* of that goes to the Secretary in the Lord Chamberlain's department, one pound something to the clerks, and there is a one pound stamp upon it.

Does any other tradesman check the prices, or is there any body to check the prices?—The price is checked when the bill comes in.

Does any body check the estimate?—No, the estimate is supposed to come from a person knowing the article; that article is described to the tradesman, and he makes an estimate, and that is sent to the Treasury.

How do you know that that is not exorbitant?—It is impossible for me to know what kind of a chair or a table may have been ordered by any gentleman; it is impossible for me, therefore, to know whether the price is correct.

You

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You do not conceive that the clerks in the Foreign Office, or the Secretary of State's Office, would be likely to know precisely the price which ought to be paid for furniture?—No, but that has been the practice.

When you order new furniture, is it the practice to inquire what has been done with the old?—We know nothing of that, no part of it ever comes to the Lord Chamberlain's office.

Do you frequently make deductions when the bills come to be paid?—It seldom happens that there is occasion for making those deductions.

Whose duty is it to see that they are checked?—The great check is to take care that the article is delivered according to the requisition, and that it does not exceed the estimate in price.

Do you see the bills after they come in to be paid?—Yes, the bills undergo the examination of the Inspector of bills.

Do they undergo your examination?—Not generally, but to those points to which my attention may have been called by the Inspector; otherwise I merely go over the amount prior to its going into the Treasury; I do not go into every particular.

You compare it with the estimates?—Yes, I do.

This system, which you have been explaining, has been recently altered, has it not?—Yes, the Lords of the Treasury have thought proper to change the system entirely.

At present the Lord Chamberlain has nothing to do with the Public Offices?—No, only with the ordinary Civil List, that which is for the King's establishment.

You have to do with the Palaces?—Yes.

Is there an inventory taken of the furniture in the Palaces?—Most assuredly, we keep an account of every article provided; and so we have an account of every article provided for the Public Offices in our ledgers, and can speak to every article provided; but what becomes of the furniture afterwards, I do not know.

What became of the old furniture of Buckingham House?—It was carried into stores at St. James's, and was disposed of by His Majesty's command.

Was there any comparison of that with the inventory, before it was disposed of?—No, we have no particular inventory of the furniture, but an entry of every article provided; if we were called upon for an inventory of the furniture, we should go to that account. A great deal of the furniture from Buckingham House was taken to Windsor Castle, long before Buckingham House was dismantled.

Have you no inventory, in the Lord Chamberlain's office, of the furniture in the other Palaces?—None but the entry in the ledger.

Have you any catalogue of the Pictures?—Yes, that is kept by the Surveyor of Pictures, a person holding that particular appointment.

Is he an officer of the Lord Chamberlain's office?—Yes.

The providing the furniture for the Palaces is still under the same regulations in your office as the furnishing the Public Offices has been?—Yes.

What fees are paid on the payment of the bill?—One guinea on one hundred pounds, and that has been for upwards of fifty years. I can speak to forty, Mr. Browell can speak to its continuance for fifty years.

Does that system now exist with respect to furnishing the Palaces?—Yes.

Does the furnishing of Windsor Castle go through your office?—Yes, under the direction of the Committee.

If a bill varies from the estimate, you refer it back to the Treasury?—If a bill varies from the estimate, an explanation is required from the tradesman, which is submitted to the Treasury, and the accounts are audited before the money is issued, every fortnight. Every order that has been given by the Lord Chamberlain's office is entered in a book, and sent to the Treasury and checked; and it goes into the hands of the Auditor, and is checked by him; and at the expiration of the quarter the whole of the accounts are made up, and the bills transmitted to the Auditor, who checks them before the money is issued.

Have any estimates been made of the furnishing of Windsor Castle?—Yes, very considerable estimates. Those estimates are at the present moment in the possession of Mr. Goulburn.

Is a guinea in the one hundred pounds paid by the tradesmen when those bills are settled?—Yes.

Has any estimate been sent in for the furnishing of Buckingham House?—No.

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Are you aware of the extent of the estimates which have been sent in for the furnishing of Windsor?—I can give them in round numbers.

Mr. Morell's estimate?—That is very considerable.

Above 100,000*l.*?—I believe so.

France and Banting's estimate?—To the best of my recollection about 22,000*l.*

To whom is the guinea per one hundred pounds paid?—It is paid to the Superintendant of payments, and divided between him and myself.

It is intended that Morell shall have the furnishing of the drawing-rooms, and that France and Banting should furnish the bed-rooms at Windsor, is it not?—Yes, all the principal apartments are to be furnished by Morell, and the inferior apartments, the servants' apartments and the visitors' apartments, by Mr. Banting.

Is any inquiry made of other tradesmen, to know whether the prices estimated by those who are employed, are reasonable or otherwise?—I presume it would be impossible for any tradesman to say, unless he were to go down to the offices requiring the furniture, and to learn of them the particulars of the furniture wanted; and then again, it would depend upon the manner in which it was made, a plain chair may be made for 3*l.* or it may be worth 5*l.*; therefore, the only way to decide upon that would be by judging of the article when delivered.

Was Morell one of the upholsterers attached to the Lord Chamberlain's office before he undertook the furnishing of Windsor Castle?—No, he was by His Majesty's command so appointed.

Does the expense of chandeliers and so forth, go through the Lord Chamberlain's office?—Yes.

A guinea in the one hundred pounds is paid upon that expenditure?—Yes.

Every species of interior fitting?—Yes.

Has that been continued with regard to the payments for Windsor Castle?—Yes, I expect so, when the bills are paid.

None have yet been paid?—No bills have yet been delivered; nothing but estimates have been yet delivered.

Are not the bills usually paid quarterly?—The bills for Windsor Castle cannot be possibly made up in that way.

Have you any thing to do with paying money on account to the tradesmen?—None.

When was the supply of the Public Offices taken away from the Lord Chamberlain's Office?—From the 5th of April last.

Was there any certificate received from the different offices, before the accounts were paid, that the articles had been received and approved?—Yes, certainly, the bill was signed by the persons belonging to the Public Office, that the furniture was safely deposited there.

Have you any return of the gross expense of furniture sent in any one year to the Public Offices under those requisitions?—I could make out that, and furnish it if it is wished; it has been furnished to the Treasury several times.

Does the furnishing of the Palaces still continue to be in the Lord Chamberlain's department?—Yes.

Were you in the habit, before the last regulation of the 5th of April, of supplying furniture for the First Lord of the Admiralty?—No.

In whose department was that?—I do not know.

There is a sum voted in the Civil List for the repairs of Palaces, which is under your department, is there not?—No, we have nothing at all to do with the repairs.

Is there a sum of 40,000*l.* in the Civil List, for the furniture of different Palaces?—For the expenditure of the Lord Chamberlain's department altogether.

That includes all the salaries?—No, it includes only the expenses of the Lord Chamberlain's department.

Is that sum regularly expended every year?—It is not; of late years we have not expended the whole.

What becomes of the surplus?—That I am not able to answer; the Treasury issue to us no more than the amount of the account delivered.

Do you think there is any sufficient check upon the prices of furniture which is put into the Palaces or Public departments?—I can say positively that there is a full check on the common and ordinary furniture; but there is furniture of a description, for the King's apartments, which it is utterly impossible any officer of the Lord Chamberlain's office can be a judge of, and I have felt it necessary to call in other tradesmen, not belonging to the office; but there was no instance in which

T. B. Mash, Esq.

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which I called in another tradesman to fix a price, that he did not exceed the amount of the charge in the bill, and I had to pay him for his valuation.

Is all the carving and gilding of the different Palaces done under the authority of the Lord Chamberlain's Office?—Only that relating to furniture; that relating to the rooms, is under the direction of the Board of Works.

Did the Lord Chamberlain's Office supply the furniture for the new Council Room at Whitehall?—Yes.

Were there not chairs of a very expensive nature made?—There were.

Do you remember what they cost per chair?—No, I do not; I observed upon them, and it was stated to me by the tradesman, that the patterns of those chairs had been made, and approved of by the Lord President of the Council, prior to the thing being decided upon.

Who was the Lord President of the Council at that time?—Lord Harrowby, I think.

You can furnish a detailed account of the expense of furnishing the Council Office?—Yes, I can; but I believe that it has been already sent to the Treasury.

Have you any copy of those bills in your office?—Yes, certainly, for every article which has been provided.

Are there any expenses incurred in the Lord Chamberlain's Office, for the apartments occupied by the Royal Family, or those who occupy Palaces through favour?—The Lord Chamberlain's office provide the fixtures; with papering, bell-hanging, locks, and all such fixtures.

Not tables and chairs?—No.

Are you in the habit of papering and painting those apartments, whenever they are required?—Whenever it is necessary; not so often as it may be required.

The external painting is not in your department?—It is not.

Are the houses of any of the Rangers of the Parks furnished by you?—No.

Have you any thing to do with furnishing apartments in the Palaces inhabited by other persons than members of the Royal Family?—No; except, as I before observed, the fixtures, grates, and things of that kind, things which persons cannot take away with them.

Do you supply grates on their request?—Not always; there are several persons who will not be satisfied with the kind of grate we put in, they put in their own grate, and then on another person coming into possession, that is settled between them; we do not permit any thing which has been put up, to be taken down; they must make their arrangements with any person that follows them, they must not take it away.

Do you never put up a fixture in those sort of apartments, on the requisition of the person occupying?—Yes, there have been particular cases in which we have done so.

You have no record in your office, what those apartments ought to contain?—We know that those apartments, occupied by persons of that description, contain nothing but fixtures belonging to the Lord Chamberlain.

Under what direction are those fixtures put up, when any inhabitants of those apartments require them?—On an application or request on the part of the person, and the matter submitted to the consideration of the Lord Chamberlain, and ordered by him particularly.

Without any reference to the Treasury?—That is paid for out of the allowance made to His Majesty, which is entirely at the disposal of the King.

Have you any thing to do with the warming of the Palaces?—No, that is in the department of the Lord Steward.

Jovis, 12° *die Junii*, 1828.

John Nash, Esquire, again called;

And having delivered in a Statement and Observations relating to Regent Street, which he requested might be added to his former evidence, the same was read, and is as follows:

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MY original Estimate for the New Street, was - -	£. 462,527 3 11
And for the Sewer - - - - - -	54,000 - -
	£. 516,527 3 11

Accompanying those Estimates, I stated as follows:—"Good-will (which if it has any precise meaning, must be the value of established trade) is of such a fleeting and fluctuating nature, so unsteady in locality, in this street to-day, in another to-morrow, as fashions and caprice direct,—often depending on personal conduct and ability in individuals, lasting no longer than they last, frequently on capital employed, and always in some degree influenced by national prosperity, that no valuation, however well considered, can be applicable beyond the present day. Good-will therefore makes no part of these estimates, but a schedule is annexed of what the probable good-will would be, were it demanded by every tradesman or shopkeeper having a permanent interest in the premises; and though this has been considered in detail, and formed by comparison with the several instances where good-will actually paid could be ascertained, yet no reliance can be placed on it as an accurate estimate."

I beg to state, that in the original estimates, I had placed the supposed good-will at 143,770 *l.*; that these estimates were submitted to the examination of other professional men, who valued the good-will at only 96,330 *l.*

In the Third triennial Report to Parliament, the Commissioners state as follows: "In the purchase of freehold or leasehold property, not in the occupation of the immediate owner, we have in general had reason to be satisfied with the correctness of Mr. Nash's estimates: the accuracy of his calculations in determining the expense of forming the new Sewer, and also of the paving of the new Street, have been fully borne out by the prices at which those works have been contracted for respectively."

The Commissioners in another of their triennal Reports state, "In some of the lettings the rents exceed what were calculated upon on the original formation of the plan, and in none of them do they fall short of those then estimated."

In another of their Reports (I believe the Second) they state, that in the purchases made of houses and ground where the owners were not occupiers, "we had in general reason to be satisfied with Mr. Nash's estimates; in many cases those estimates have very nearly corresponded with demands made on the behalf of the claimants by surveyors of great experience and respectability."

To the above statement I beg to add, that as it is impossible to ascertain the value of any man's trade or business but from his own statements, so is it also impossible to know what his profits are, and still more so to ascertain what portion of that trade he will lose by removal; but in all cases their claim is upon a supposition, that they will lose *all* their business. The Committee will see how utterly impossible it is to ascertain the amount of compensation they would obtain for business, fixtures, furniture, &c. &c. In the recent valuation of the Strand Improvements, having the experience and results of nearly one thousand instances in the New Street before me, I have endeavoured to apprize the Government of what I considered an extreme amount; but I am still likely to be baffled by the exorbitant demands which have been made and are still making for compensation for trade and business; and so exorbitant are those demands, that in many cases the claimants have themselves accepted of one-half of their demand, and in most of them they have abated one-third; yet still there is the impossibility to ascertain the profits of their business, their probable loss, but from their own statement and their own books.

The interest also which they have in their leases is so blended with the compensation of their business, that it is not possible to separate them, and therefore it is impossible to judge of the freehold and leasehold property, so as to compare it with the estimates. The description of surveyors employed by the claimants, are generally not of the higher class of professional men, and are so numerous, that every Bill of public improvements is a harvest which they anxiously look for, and eagerly avail themselves of; and they so greatly outnumber the men of known judgment and character, that I have found it difficult to name an umpire to whom I could confide the interest of the Crown, and have been compelled to accept of nominations, which but from necessity I should not have approved of. There are also, I am sorry to say, notions of valuation newly adopted, even by men of known ability and character, which are so much at variance with common sense, that no estimate of property made upon sound judgment can be expected to be realized; one of these I will mention, as one of which every member of the Committee will be enabled to judge: They consider the valuation of a building as a rental in fee; whereas a house is perishable, and its rent cannot be considered as a perpetuity;

perpetuity; the only part of it which is truly a perpetuity, is the ground on which it stands, the house, which establishes the rent, being of a temporary nature.

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In the great purchases of the New Street, where the freehold properties were valued, such as on the estate of the Duke of Portland, Sir Richard Sutton, and others, a very different doctrine was held; and in several purchases where the amounts of the lowest of them were above 30,000 *l.* the gentlemen employed to value against me did not vary from my valuation five per cent; and I am certain, that were the different freeholds and leaseholds in my recent valuation put up to auction, they would not fetch two-thirds of the sums at which I have valued them.

12 June 1828.

I have explained in the beginning the object of this address. What portion of the sum of 1,139,835 *l.* is for good-will, &c. I have no means, nor have the Commissioners of Woods and Forests the means, of ascertaining, nor do I know of what the items consist; but I am certain that no professional man of judgment and experience, who could satisfactorily explain the principle of his valuation, would value the freehold and leasehold property of the New Street or the Strand Improvements higher than I have done.

7th June 1828.

Then the Witness was further Examined.

The Committee wish to know, with regard to this intended line of building by the Birdcage Walk, is the Terrace intended to come beyond the line from Storey's Gate?—No, it is intended that the Terrace should be within the footpath and the road.

By this Plan, there is a line drawn from Storey's Gate; why does the Terrace encroach upon that line?—It does not do so.

Does the Terrace encroach upon that line?—No, not upon the road, from Storey's Gate, nor upon the footpath.

There is at present a footpath alongside the Southern side of the road, which goes part of the way?—It is meant to go the whole way.

At present it only goes part of the way; and here is a higher part?—That is intended to be brought down.

Is it intended that the footpath shall be carried on in a straight line?—Yes.

And if carried on in a straight line, is it not intersected by the Terrace of the houses?—Certainly it is not.

How comes it to be so distinctly marked upon the Plan?—It is the intention; but with respect to the trees, they are not put down accurately in that Plan.

Does not the Terrace actually stand partly upon the Birdcage Walk?—I cannot tell that from recollection.

Is not this footpath a perfectly new work?—The whole road is a new work, as formed upon the Plan.

Does not the Terrace stand upon the footpath?—The buildings and their appendages will come to that line, but not on the footpath.

Is that no encroachment?—I do not know what may be called an encroachment; I think I can only refer to the thing itself, and that will show whether the Terrace would encroach upon the footpath.

As the King's stables, which were originally intended, are not going to be built, would there be any objection to put back these houses twenty feet?—Yes, and I will say why; when the King gave up these stables, it was for accommodation to the barracks; but we have restrained the barracks as far back as we can, and cannot go further back, without intruding upon the ground intended for barracks.

You still contemplate the maintaining the station of that barrack?—Yes; the necessity for the barracks to have space, and to avoid the necessity of taking down the station, which would be a great expense. There is a spot of ground in the line given up to the Public, which was intended as gardens to the houses on the Terrace.

You know there are some lamp-posts; how would the line of the proposed Terrace run, compared with the line of those lamp-posts?—I should think it would be on the South side of those lamp-posts.

Is it intended that the footpath in front of the Terrace of the houses, shall be continued in the line of that part of the footpath which is now finished?—It is; because the ground is to be levelled. Now the whole length of these buildings, the road, and the footpath, are parallel.

What space do you allow as the road way?—I think six and thirty feet.

That includes the footpath?—No; but I cannot say precisely.

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Is it to be the same breadth all the way?—Yes.

Then, taking the breadth on one part, it would give the breadth throughout?—Yes.

Is the footpath made perfectly straight?—Yes. I apprehend it will be found this Terrace is continued straight, or put further back. The reason of this Terrace is this; the ground here does not admit of a basement story being sunk; and it was my intention to enter under this narrow Terrace into this basement story.

How soon is it intended to open the proposed Garden in the centre of the Park, to the Public?—The Park is now finished as far as I have to do with it, except as to a very slight iron railing to be placed round the clumps of trees, to protect the trees generally; except some on the outside, which will be sacrificed. It does not rest with me, but I presume it will be advisable to let this winter go through, in order to allow the trees an opportunity of growth, and to open it the following summer.

Is that Iron Railing which you allude to, ordered?—No, I have no authority to order it. It is included in the general estimates; but at present, I have no Treasury authority for it.

In what general estimate is that included?—The general estimate of forming the Park.

That amounts to about 16,000*l.*?—I have no copy of it here.

When individuals were anxious to take the ground on Carlton Terrace to build upon, they were referred to you, and you told them the conditions upon which they were to have the ground?—Yes.

Did you give Sir Matthew Ridley and Sir William Alexander reasons to suppose that the vacant space opposite to their houses was to be secluded from the Public?—I did certainly, not only to them, but every one who took houses; and that was one of the great inducements for taking the ground.

Then if egress is made from Waterloo Place into the Park, how did you propose that was to be done?—There never was proposed to be any egress.

Had you not a Plan in agitation for something of that sort?—Yes, arising out of the wish of the Members of this Committee, and from nothing else. I suggested it, in order to meet the sense of this Committee; knowing the engagements that Government had entered into, through me, with individuals who took the ground, precluded the possibility of going over the Terrace into the Park. But the Committee seeming desirous of such a communication, I suggested a subterraneous communication.

Did you not show it on a Plan?—Yes, I showed the Committee a Plan, exhibiting how it might be done, so that private individuals might be entitled to access to the Park, without making it a public thoroughfare.

Do you think that making a flight of Steps, in opposition to the consent of the persons having the houses, would be an infraction of that agreement which you made with them?—Yes, certainly, if it were to be thrown open to the Public, and if access were to be made across the Terrace.

You are building the Terrace across the opening; have you left any means for making a subterraneous passage?—I have made an arch.

Is it not now the wish of the inhabitants of the new houses to have the Terrace divided into small parcels?—Not one, that I know of; every one that has spoken to me, has decidedly expressed a different opinion.

The individuals who have these houses pay nothing additional for frontage?—Nothing at all; but I ought to explain: Sir Matthew Ridley and Sir William Alexander have built up a wall, and they are put to an enormous additional expense; and the reason why both those gentlemen went to that expense was on account of counting upon a Terrace in front of it.

Is there a wall that runs across from the Esplanade in which the Fountain is situated, to what is marked in the Plan as a continuation of Waterloo Place?—There is.

Is the Esplanade to be gravel, or grass?—It is to be flagged.

According to the manner in which you have now built the Terrace, would it be easy to make the subterraneous Passage?—Yes, if made now. If not made now, it must be made by an excavation from the surface. From Pall Mall to the Terrace would be a level; but from a necessity, it is an inclined plane. We were obliged to raise this Terrace so as to have kitchens and offices underneath.

The street is the lowest point?—Yes.

Then it is an artificial elevation?—Yes.

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Is this, which is described, in the Plan of the alterations in St. James's Park and the old canal, as an island, but which is a peninsula towards the end of the lake opposite the Parade, to be continued in that state; or is it to be actually made an island?—No; it is to continue in the state in which it is, otherwise it would be necessary to have a ferry to it.

It is observed that the two prominent parts that stand forward from Buckingham Palace are now partly taken down?—Only one story; because those buildings are to be raised to the elevation of the body of the house. Those windows then will all come up again. Therefore, as far as the alteration goes, the expense will not exceed 500*l.* It was thought desirable to provide additional rooms; this was before deemed requisite; and I was aware of the want of those rooms; but when I was asked how I should remedy those defects, I said, If it is necessary to have additional rooms, I can make them. I was then directed to make the additional rooms; and therefore I then had an opportunity of raising the building to the elevation of the body of the house. This is the history of the manner in which it is to be done, and there are now twenty-seven additional apartments.

Martis, 17° *die Junii*, 1828.

The Right Honourable Lord Viscount *Goderich*; Examined.

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17 June 1828.

YOUR Lordship's name being frequently mentioned by Mr. Soane in his evidence relating to the New Council Office, the Committee are desirous of knowing what directions Mr. Soane received from your Lordship, previous to or during the progress of that building?—Although I was the organ of communicating to Mr. Soane the decision to which the Treasury had come, I was not myself individually the sole person to decide. I do not exactly recollect the precise dates at which the different directions were given, either verbally by myself, or in a more official form by the Treasury; but the building of a new office for the Board of Trade originated in a representation made by that department, of the great dilapidation of the building, its great insecurity, and its entire inadequacy, from want of accomodation, for the ordinary business of the office. Upon this representation the Treasury directed, and I presume it was done in the regular course, that the Board of Works should, as usual, provide plans for the consideration of the Treasury. In consequence of this, certain designs were submitted to Lord Liverpool and myself by Mr. Soane, for the filling up the vacant space which would be occasioned by pulling down the old office of the Board of Trade. At that time no representations had been made by the Privy Council Office, of the bad condition in which that building was; the only designs therefore that were at that time called for, related to the Board of Trade. Two or three designs, I believe, were produced; to all of which I thought there were considerable objections; but I think there was one of them which appeared to be less objectionable than the rest, and it was intended to give the necessary orders for the execution of that design. Before however any step was taken, or any expense incurred, it was represented that the Privy Council Office also was in a condition nearly as inadequate to its purposes and as unsafe from its dilapidated state as the Board of Trade; upon this representation being received, and the necessity of pulling down the Council Office being thereby established, it was deemed advisable that any plan for rebuilding the two offices should be uniform in its exterior; and as the space occupied by the Board of Trade and the Privy Council was flanked on the Downing-street side by a very shabby alehouse, it was deemed indispensable that that building and the others in Downing-street immediately adjoining to it should be removed, as soon as the Crown should become in possession of the leases, in order that there might be a sufficient space on each side for any building which might be determined upon for the Council Office and the Board of Trade. The whole space which was then to be occupied by a new front was thus greatly enlarged, and the design proposed for the Board of Trade alone, was obviously inapplicable to the larger space, independent of any other defects which it might have had; Mr. Soane was therefore directed to prepare a plan which should comprise the whole of the space which was now to become vacant, and which I believe would have been a façade of not less than from 150 to 160 feet. Various meetings were held at Fife House upon the subject, and

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there was much discussion as to what ought to be the character of the façade; and I perfectly remember representing to Mr. Soane, that I very much wished that in forming his plan he would have reference to the opposite building of Whitehall Chapel, and the general designs of Inigo Jones for a new palace at Whitehall, which notwithstanding some defects in the details, was nevertheless so grand in its proportions and so harmonious in its general effect, that it appeared to me it might furnish suggestions very applicable to those new buildings about to be erected in the immediate neighbourhood of Whitehall Chapel. The design which Mr. Soane first produced in consequence of this communication, did not appear to be founded upon this suggestion; in its character it was pretty much the same as that of which the model has been before the Committee, with this exception, that the centre of the building (if I recollect right) was not to be so much advanced as the two extremities; so that the columns of the centre were to be detached from the building, those upon the flanks being three quarter columns. But in the discussions which took place in consequence of receiving this design, doubts were expressed, in which I concurred, as to that part of the plan which consisted in throwing back the centre of the building so as to separate the centre columns from the wall; my objection to that separation was this, that although separated from the wall, and having therefore the advantage of a play of light and shade, they were still intended to be so near to it that there would be scarcely room for any one to pass between the columns and the wall; so that it would have had the appearance only but not the reality of a colonnade; and I thought, and others thought also, that it would be better to make them all three-quarter columns throughout, than by separating a part of them to aim at producing an effect which after all would only be a deception.

The order which Mr. Soane proposed to us in this front, was that of the Temple at Tivoli, to which he is very partial, and of which the works at the Bank afford, in my opinion, a very unsatisfactory example; that specimen of the Corinthian order being universally deemed extremely defective from the dwarfish proportions of its capital. I suggested therefore to Mr. Soane, that I thought it would be infinitely preferable to take as a model the three columns of the Temple of Jupiter Stator in the Campo Vaccino at Rome, which are allowed to be amongst the finest specimens of the Corinthian order. When the design was produced, I had no idea that the elevation of the building would be so little in harmony as to height with the buildings in its immediate neighbourhood, and I do not recollect that at the time anything was stated as to the details connected with the height of the building, which explained that it would be so low as it now appears; and the orders that were given for the execution of the design, of which the Committee have seen a model, were given under an impression (as far at least as I was concerned) that the height of the building would be conformable to the situation in which it was to be placed, and the height of the neighbouring buildings. In that model, the sort of wall by which Mr. Soane proposed to connect the chimnies appeared, but I conceived, (although I do not recollect that it appeared in the drawing,) that it would be invisible from the street, and that at all events it was to be the part of an entire story, and not merely two walls very near together for the mere purpose of concealing the skylights, by which it was intended to light a gallery beneath, there not being at that time before the Treasury any plan for the disposition of the interior of the building to explain that arrangement. When the details of the building were subsequently more thoroughly explained, I was very much struck with its want of height, and I stated my feelings upon the subject very decidedly to Mr. Soane. I suggested to him two modes by which this defect might be obviated; one was to raise the basement story, which being partly underground was not intended to be more than three feet above the ground, to at least the same height as the basement story of Whitehall Chapel, which cannot be less than ten or twelve feet. Mr. Soane objected to this proposition, that it was contrary to good principle and good taste, that where three-quarter columns were used the base of them should be so much elevated above the ground, and he did not seem to admit that the example of Whitehall Chapel on the opposite side of the street was a sufficient answer to that objection. He persisted in his objection to give an elevation to the building by such a change in the plan. I then proposed that the elevation might be obtained by making the windows of the two stories between the columns of equal heights, the effect of which would have been to have increased the length and the proportions of the columns and to have given the necessary elevation to the building. To this proposition Mr. Soane objected, that

there

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there was no example to be found in the works of the best Italian architects, particularly Palladio, of any building with columns so attached where the two rows of windows were of the same size; and he shewed me two or three volumes of Palladio's works, which, as far as the example of that artist goes, confirmed his opinion as to the fact. It did not, however, convince my judgment; and I referred him to a building at Rome, which I believe to be a very magnificent one, and of which the modern wall erected between the antient columns is pierced with three rows of large windows of a uniform size, and of which the effect, judging from drawings, (I never saw the original,) appears to me to be very handsome. Mr. Soane, however, maintained his own opinion as an Architect; but I think it necessary to observe, that the question of any difference of expense between two stories of equal height and two of unequal height never arose, and would never have been considered by me as any objection whatever to the adoption of the plan of alteration which I suggested.

Having made all these representations to Mr. Soane, together with my own suggestions of the best mode of remedying what appeared to me to be a defect, the utmost that I could induce him to assent to, was to raise the basement story from about three feet to its present elevation of about four or five feet. As the building advanced the defect in point of height became apparent, and the upper part of the building was so visible from the opposite side of the street, as to constitute a great disfigurement to the whole design. It was then suggested, but not by me, that the only mode in which the defect could be cured would be by forming two pavilions, one at each end of the building, with an attic, whereby the wall connecting the chimnies would have at least the appearance of some utility, as connecting together the two flanks of the building. This suggestion was much considered, and Mr. Soane was directed to prepare a plan, by which some idea might be formed of the effect which it was likely to produce. This plan was accordingly prepared by Mr. Soane, and it was determined that it should be carried into execution with the Pavilion at each end, one towards Downing-street and the other in front of the Secretary of State's Office.

I should observe here, that representations have frequently been made of the necessity of a good deal of interior alteration in that building, now occupied partly by the Treasury and partly by the Secretary of State for the Home Department, particularly on account of very offensive smells to which it was liable, and which were represented as being very prejudicial to the health of those who occupied it.

After this plan had been determined upon, Mr. Soane suggested to me an additional scheme, according to which he proposed to make a grand entrance into the Park through Downing-street, with a triumphal arch thrown across Downing-street at the point where the present new building terminates; and a building corresponding in style with the Privy Council Office was proposed to be erected on a line towards Westminster Abbey. This design looked very well upon paper, but I always expressed to Mr. Soane the most decided objections to it. First, it involved the pulling down of every house in Downing-street; and if that objection were to be met by leaving them standing, the triumphal arch would have led to nothing but a very shabby *cul de sac.* In the next place he could not have repeated on the Westminster Abbey side of Downing-street a *fac simile* of the Council Office without carrying it across King-street. Entire uniformity was therefore out of the question, and the mode by which Mr. Soane proposed to execute his purpose was to confine the repetition of the building to the Pavilion; but he would have been unable to have brought even the Pavilion so forward as to be a prolongation of the Privy Council Office; it was therefore according to his design, to have been less advanced; so that in fact it would not have been a repetition of the building on the north side of Downing-street, but merely a building of different dimensions in the same style. It appeared to me therefore that if it were not a repetition of it, but solely in the same character, it would have the worst effect from the incongruity of the parts and the irregularity of the whole design; and I stated to him, that whenever it should become necessary to determine any thing with regard to the line of approach to Downing-street, which ultimately would have become necessary, any design intended for that purpose ought to be of a character entirely distinct from the other building which had its natural termination with the Pavilion now erected in Downing-street.

Did Mr. Soane point out to you the inconvenience in erecting the fronts of the building in the form and the line as it now is?—The line which the building now

Lord Viscount *Goderich.*

17 June 1828.

assumes, was originally taken before the Pavilions were determined upon; and when the new building would have terminated to the north at the Treasury passage, and the reason for taking that line was, that a prolongation of the line of the Secretary of State's Office, which would otherwise have been the most natural, would have brought the south flank of the building inconveniently forward at that end; when, however, it was determined that the two Pavilions should be added, and that a Colonnade should be erected in front of each, it did not appear from the design first produced, that the North Pavilion would be so far brought forward upon the pavement as to form an angle with the buildings of Melbourn House; and I do not recollect that Mr. Soane ever pointed out this circumstance as an objection, at the time the plan of the two Pavilions was determined upon; but I perfectly remember stating to him, whilst the matter was in discussion, great doubts as to how he would be able to manage the return flank of the North Pavilion; he always, however, assured me that it could very easily be done, that there was space enough for it, and that it would not have at all a bad effect. There can be no doubt that the North Pavilion will project too much, but there is so much irregularity in the general appearance of Charing Cross, and so many angles already formed by the different buildings in that street, that I confess I do not think that objection in itself of great importance.

Does your Lordship recollect any thing with regard to putting on or taking off the balustrade connected with the chimney?—Mr. Soane's original design did not contain a balustrade, it was not suggested by Mr. Soane, and although he did not state any positive objections, I am bound to say that he never appeared to like it.

Did Mr. Soane foresee that the line formed by the North Pavilion would be so inconvenient as it is proved to be, or did he state any thing on that point to you?—Whether he foresaw it I cannot say; but he never stated any objection to it, nor was I aware of the extent to which it would project into the street, until it was pointed out to me by another individual who had been struck with the probable effect. Upon this I desired a ground plan to be made for the purpose of shewing precisely where it would come in relation to the wall of Lord Melbourne's House; the building was then considerably advanced, and I have no recollection that the degree to which it would project was ever distinctly pointed out, until a ground plan was expressly drawn by my desire for the purpose of shewing it, in consequence of the remark of another person to which I have alluded.

Mr. Soane, in his evidence, mentions that your Lordship was extremely pleased with his design to terminate the present Council Office building by a triumphal arch, will you have the goodness to say if such was your Lordship's impression?—Mr. Soane was so pleased with it himself that I was unwilling to say any thing on the subject that might hurt his feelings; but I entirely disapproved of it as a practical plan, for the reasons which I have already stated. I not only never gave Mr. Soane any reason to suppose that it was likely to be executed, but distinctly told him that it was entirely out of the question.

From the situation which your Lordship has filled, perhaps you would inform the Committee if it ever occurred to you that the formation of a Board, to whom these subjects should be referred, would be advantageous?—I think it would be very beneficial; I have constantly found myself the want of assistance and advice in such matters from persons more skilled than myself in such matters; and I am satisfied that such advice and assistance can never be satisfactorily given, except by individuals who are responsible for it.

Do you think it would act advantageously both in correcting the design and limiting the expense, from rendering these changes and alterations in the plan less frequent?—Decidedly, with regard to the design; as to the expense, I should say the same, if it would ensure (which I rather doubt) that the design once ordered should not be altered.

APPENDIX.

LIST OF APPENDIX.

N° 1.—RETURN of all Houses or Apartments, occupied at the Public Expense, wholly or in part, as Residences, by Public Officers, in London and Westminster - pp. 152, 153

N° 2.—List of Public Buildings, the Repairs and Alterations of which are under the superintendence of the Board of Works - - - - - - - - - - - p. 154

N° 3.—Account of Expense of furnishing the Council Office, and Rooms for the Board of Trade; and of the House in Downing-street allotted to the Secretary of State for the Foreign Department - - - - - - - - - - - - - - - p. 155

N° 4.—Account of the Expense incurred for Furniture supplied and repaired for the Houses of Lords and Commons, the Courts of Law at Westminster, and the various Public Offices and Official Houses in London and Westminster, &c. - - - - - - ibid.

N° 5.—Return of the number of Houses and other Buildings which are under the superintendence of the Commissioners of the Land Revenue and Woods and Forests - - p. 157

N° 6.—Estimates and Items of Expense relating to the building of Buckingham Palace, p. 159

N° 7.—Account of the Sums expended, or estimated to be expended, upon the Entrance into Hyde Park, &c. - - - - - - - - - - - - - - p. 161

N° 8.—Account of the Expense of building and completing the New Post Office - p. 162

N° 9.—Letters and Minutes of Treasury relating to the Allowance of 5 per cent to Mr. Wyatville and Mr. Nash - - - - - - - - - - - - - - p. 163

List of Papers presented to the Committee, and preserved among the Committee Papers of this Session - - - - - - - - - - - - - - p. 165

Appendix, N° 1.—A RETURN of all Houses or Apartments, occupied, at the Public Expense, wholly or the same, for Purchase, Rent, Repairs and Furniture,

	1823.				1824.				1825.			
	Rent.	Repairs.	Furniture and Fixtures.	TOTAL.	Rent.	Repairs.	Furniture and Fixtures.	TOTAL.	Rent.	Repairs.	Furniture and Fixtures.	TOTAL.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
First Lord of the Treasury (occupied by the Chancellor of Exchequer) - - House	–	3,080	1,209	4,289	–	306	564	870	–	4,767	351	5,118
Chancellor of Exchequer (occupied by one of the Secretaries of the Treasury) - - House	–	1,518	95	1,613	–	55	608	663	–	2,708	29	2,737
Secretary of State, Foreign Department, d°	–	96	–	96	–	877	571	1,448	–	[a]26,891	1,979	28,870
The Lord High Admiral, the Members of his Council, and first Secretary to d° - 6 Houses	–	1,894	–	1,894	–	1,844	–	1,844	–	1,064	–	1,064
The Second Secretary to - - d° - House	311	–	–	311	168	[b]4,021	–	4,189	16	–	–	16
The Comptroller of the Navy, the Surveyor of d°, three Commissioners of d°, and Secretary - - - - 6 Houses	–	1,223	–	1,223	–	1,449	–	1,449	–	700	–	700
The Treasurer of the Navy - - House	–	1,355	–	1,355	–	299	–	299	–	328	–	328
Three Commissioners of Victualling - 3 Houses	–	1,363	–	1,363	–	375	–	375	–	1,007	–	1,007
The Speaker of the House of Commons, House	–	634	365	999	–	3,311	1,792	5,103	–	517	866	1,383
The Clerk of the Parliaments - - d°	–	530	269	799	–	35	11	46	–	74	4	78
The Assistant - - d° - - - d°	–	416	154	570	–	7	2	9	–	9	4	13
The Chief Clerk of the House of Commons, d°	–	157	56	213	–	86	30	116	–	21	22	43
The Clerk Assistant - - d° - Apartments	–	–	–	–	–	–	1	1	–	–	1	1
The Clerk of the Journals d° - - d°	–	–	10	10	–	–	14	14	–	–	14	14
The Paymaster General - - - House	–	84	70	154	–	27	27	54	–	32	19	51
The Judge Advocate General - - d°	–	219	–	219	–	–	–	–	–	81	–	81
The First Commissioner of Woods, Forests, &c. d°	–	211	32	243	–	371	96	467	–	482	78	560
The Secretary to the Comm[rs] of d° - Apartments	–	–	–	–	–	–	–	–	–	35	–	35
The Secretary to the Master General of the Ordnance - - - - - House	–	15	–	15	–	15	–	15	–	20	–	20
The Secretary to the Board of Ordnance - d°	–	20	–	20	–	50	–	50	–	30	–	30
Twenty-one Clerks and several Officers of the Ordnance Department in the Tower - - - - - - 27 Houses	–	1,099	–	1,099	–	767	–	767	–	229	–	229
Master Gunner (Ordnance) - - House	–	6	–	6	–	6	–	6	–	5	–	5
Storekeeper - - d° - - - d°	–	5	–	5	–	12	–	12	–	6	–	6
Chairman of the Board of Taxes - d°	–	731	–	731	–	–	–	–	–	–	–	–
Secretary to the - d° - - Apartments	–	486	–	486	–	–	–	–	–	5	–	5
Solicitor to the - d° - - - House	34	120	–	154	34	18	–	52	34	53	–	87
Chairman of the Board of Stamps - d°	–	–	–	–	–	54	–	54	–	19	–	19
Secretary to - - - d° - - Apartments	–	10	–	10	–	58	–	58	–	–	–	–
The Secretary to the Board of Customs - House	78	56	–	134	78	172	–	250	78	10	–	88
Inspector General of Imports and Exports, d°	20	–	–	20	20	–	–	20	20	–	–	20
The Comptroller of the Stationery Office d°	–	–	–	–	–	–	–	–	–	–	–	–
The Deputy Master of the Mint - - d°	–	23	–	23	–	–	–	–	–	–	–	–
The Comptroller of - d° - - - d°	–	–	–	–	–	–	–	–	–	277	–	277
The King's Assay Master, Master Melter, 11 officers, and 6 workmen } Houses and Apartments	–	65	–	65	–	10	–	10	–	1,106	–	1,066
Assistant Secretary of the Post Office - d°	–	28	–	28	–	24	–	24	–	45	–	45
Resident Secretary of the Irish Office - d°	–	75	–	75	–	25	–	25	–	28	–	28
Secretary Almonry Office - - - d°	–	–	24	24	–	–	5	5	–	–	–	–
Secretary Lottery Office - - - d°	–	–	–	–	–	–	–	–	–	–	–	–
Assist[t] Keeper and Secretary National Gallery, d°	–	–	–	–	–	–	239	239	–	–	–	–
Principal Librarian, British Museum, House and Seven officers of - - d° - - Apartments	–	280	–	280	–	32	–	32	–	7	–	7
	–	43	–	43	–	997	–	997	–	49	–	49
Deputy Governor of the Tower - - House	–	26	15	41	–	90	–	90	–	145	58	203
Chaplain of the Tower, Keeper of the Jewel Office, Master Gaoler, Keeper of the Menagerie, and 21 Warders } 25 Houses	–	106	–	106	–	243	–	243	–	167	–	167
The Master of the Rolls - - - House	–	131	–	131	–	1,085	–	1,085	–	30	–	30
The Judge of the Marshalsea Court - d°	–	–	–	–	–	–	–	–	–	–	–	–
The Marshal of the King's Bench Prison d°	–	–	–	–	–	15	–	15	–	–	–	–
The Warden of the Fleet Prison - - d°	–	–	–	–	–	–	–	–	–	–	–	–
The Deputy Marshal of the Marshalsea Prison, d°	–	5	–	5	–	20	–	20	–	–	–	–
£.	443	16,110	2,299	18,852	300	16,756	3,960	21,016	148	40,947	3,425	44,520

([a]) This includes the sum of £. 18,000 for the purchase of Sir Robert Preston's House, in Downing-street, as a residence for the Foreign Secretary of State, being the *only expense* incurred on account of *purchase* for Residences of Public Officers, during the period of this account.

([b]) This sum is a moiety of the expense of taking down two old Houses in Spring Gardens, and erecting two new tenements on the scite thereof, one of which is appropriated as a residence for the second Secretary of the Admiralty, and the other for the official duties of the Marine Pay Office, which not being an official residence, is not included in this account.

([c]) In addition to this sum, £. 4,250 was paid in 1827, for the purchase of the reversion in fee of four houses situate near the Admiralty, in Buckingham-court,

in part, as Residences, by Public Officers, in London and Westminster; with an Account of the Expense of during each of the last Five Years.

1826.				1827.				Five Years.				OBSERVATIONS.
Rent.	Repairs.	Furniture and Fixtures.	TOTAL	Rent.	Repairs.	Furniture and Fixtures.	TOTAL	Rent.	Repairs.	Furniture and Fixtures.	TOTAL.	
£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	
–	44	858	902	–	151	311	462	–	8,348	3,293	11,641	
–	3,116	307	3,423	–	31	25	56	–	7,428	1,064	8,492	
–	4,811	5,288	10,009	–	110	1,512	1,622	–	[a]32,785	9,350	42,135	
–	1,695	–	1,695	–	[c]7,515	–	[c]7,515	–	14,012	–	14,012	
7	–	–	7	7	–	–	7	509	[b]4,021	–	4,530	
–	874	–	874	–	323	–	323	–	4,569	–	4,569	The external repairs of these Building are included in the general account of repairs t Somerset House, and cannot be separated.
–	476	–	476	–	324	–	324	–	2,782	–	2,782	
–	373	–	373	–	188	–	188	–	3,306	–	3,306	
–	1,450	635	2,085	–	385	749	1,134	–	6,297	4,407	10,704	
–	45	4	49	–	58	289	347	–	742	577	1,319	
–	–	100	100	–	99	14	113	–	531	274	805	
–	152	7	159	–	15	31	46	–	431	146	577	The expense for repairs of these Apart
–	–	–	–	–	–	39	39	–	–	41	41	ments cannot be separated from the general repai
–	–	12	12	–	–	1	1	–	–	51	51	of the building.
–	2,404	330	2,734	–	27	3	30	–	2,574	449	3,023	
–	–	–	–	–	51	–	51	–	351	–	351	This House has been given up for the us
–	309	38	347	–	495	14	509	–	1,868	258	2,126	of the department of the Colonial Secretary of State
–	–	–	–	–	48	–	48	–	83	–	83	and the Judge Advocate General receives an allow ance of £. 500 per annum in lieu thereof.
–	200	–	200	–	20	–	20	–	270	–	270	A rent of £. 140 per annum is paid to th public for this House by the occupier.
–	20	–	20	–	84	–	84	–	204	–	204	
–	360	–	360	–	446	–	446	–	2,901	–	2,901	
–	132	–	132	–	6	–	6	–	155	–	155	
–	10	–	10	–	56	–	56	–	89	–	89	
–	–	–	–	–	3	–	3	–	734	–	734	The external repairs of these buildin are included in the general repairs of Somers
–	25	–	25	–	2	–	2	–	518	–	518	House, and cannot be separated.
34	17	–	51	34	25	–	59	170	233	–	[d]403	
–	–	–	–	–	–	–	–	–	73	–	73	This House has been given up for th official purposes of the Stamp Office; and the Cha
–	25	–	25	–	–	–	–	–	93	–	93	man receives an allowance of £. 300 per annum
78	36	–	114	78	179	–	257	390	453	–	843	lieu thereof.
20	48	–	68	20	181	–	201	100	229	–	329	
–	–	–	–	–	–	–	–	–	–	–	–	The expense for the repairs are includ in the general Account of repairs to this buildi
–	1	–	1	–	–	–	–	–	24	–	24	and cannot be separated.
–	–	–	–	–	–	–	–	–	277	–	277	
–	60	–	60	–	7	–	7	–	1,248	–	1,248	The repairs of some of these hous cannot be given, being included in t Accounts of the Mint generally.
–	39	–	39	–	33	–	33	–	169	–	169	
–	20	–	20	–	779	–	779	–	927	–	927	
–	–	43	43	–	–	140	140	–	–	212	212	The repairs of these apartments can be separated from the repairs of the offic
–	–	–	–	–	–	–	–	–	–	–	–	generally.
–	–	3	3	–	–	5	5	–	–	247	247	
–	–	–	–	–	20	–	20	–	339	–	339	
–	189	–	189	–	135	–	135	–	1,413	–	1,413	
–	45	–	45	–	74	286	360	–	380	359	739	
–	96	–	96	–	84	–	84	–	696	–	696	
–	127	–	127	–	542	–	542	–	1,915	–	1,915	The expense of repairs cannot be sep rated from the repairs of the buildings generally.
–	–	–	–	–	–	–	–	–	–	–	–	
–	–	–	–	–	–	–	–	–	15	–	15	No further repairs are to be done at t public expense.
–	–	–	–	–	–	–	–	–	–	–	–	The expense of repairs cannot be give
–	–	–	–	–	50	–	50	–	75	–	75	being included in the general repairs of the prison
139	17,199	7,625	24,963	139	12,546	3,419	16,104	1,169	103,558	20,728	125,455	

The repairs for the Buildings marked thus * were made under the direction of the Surveyor General of the Office of Works, the expense when beyond the amount of ordinary current repairs, having been sanctioned in the first instance, by the Treasury.—The Furniture, where any has been supplied, was provided under the directions of the Lord Chamberlain's department, upon requisitions addressed to that department from the respective offices, or from the persons having official residences.

The repairs to the Buildings marked thus † were made under the direction of the Commissioners of the Admiralty, or Lord High Admiral.

The repairs to the Buildings marked thus ‡ were incurred under the authority and directions of the Surveyor General of Works, or of the respective Naval Boards.

The repairs of the Buildings marked thus § were incurred under the authority and direction of the respective departments.

Whitehall Treasury Chambers,
23 May 1828.

GEO. R. DAWSON.

Appendix, N° 2.

LIST of PUBLIC BUILDINGS, the Repairs and Alterations of which are under the superintendence of the Office of Works.

The House of Lords.
The House of Commons.
The Treasury.
The Home Office.
The Foreign Office.
The Colonial Office.
The Office of the Privy Council.
The Office of the Board of Trade.
The Office of the India Board.
Westminster Hall.
The Court of Chancery in Westminster Hall.
The Court of the Vice Chancellor in d°
The Court of King's Bench in - - d°
The Court of Common Pleas in - d°
The Court of Exchequer in - - d°
The Offices of the Exchequer in Palace Yard.
The House of the Speaker.
The House of the First Lord of the Treasury.
The House of the Chancellor of the Exchequer.
The House of the Foreign Secretary of State.
The House of the Clerk of the Parliaments.
The House of the Assistant Clerk of the Parliaments.
The House of the Chief Clerk of the House of Commons.
The House of the Assistant Clerk of - - d°
The House of the Clerk of the Journals.
The Parliament Office.
The Record Office.
The State Paper Office.
The Palace Court.
The Office of Works.
The Almonry Office.
The Chapel at Whitehall.
The Land Revenue Office.
The Exchequer Seal Office.
The House of the Labourer in Trust.
The Horse Guards, and all the Offices therein.
Somerset House, and all the Offices therein.
The Rolls House and Court.
The Royal Gallery.
The British Museum, and the Official Houses therein.
The Kings Bench Prison.
The Fleet Prison.
The Marshalsea Prison.
The Mint, and the Official Houses therein.
The Insolvent Debtors Court.
The National Debt Office.
The Stationery Office.
The Chapel in the Tower.
The House of the Governor.
The House of the Chaplain.
The Houses of the Warders (Twenty-one in number.)
The Jewel Office.
The Lion Office.
The White Tower and Record Office.
The House of the Labourer in Trust.
The New Custom House -
The New Post Office - - } - now building.

B. C. Stephenson.

Appendix, N° 3.

AN ACCOUNT of the Expense of FURNISHING the COUNCIL OFFICE and Rooms for the BOARD OF TRADE, and of the House in Downing-street allotted to the Secretary of State for the Foreign Department; specifying by whose Order the Furniture was ordered, and by whom those Charges were examined and audited.

	£.	s.	d.
Furniture for the Council Office	5,660	3	2
—— Board of Trade	5,659	15	6
—— Residence of the Secretary of State for Foreign Affairs	9,350	–	–

THE Requisitions and Estimates for the articles supplied to the Council Office, were signed by Mr. Buller, one of the Clerks of the Council; those for the Board of Trade by the Right hon. W. Huskisson, President of the Board of Trade, and Mr. Lack, Assistant Secretary to the Board of Trade; those for the Residence of the Foreign Secretary of State by the Chief Clerk of that department, under the authority of the Secretary of State.

The Tradesmen's Bills, compared with those Estimates, were examined by the Inspectors of Accounts in the Lord Chamberlain's Department, and audited by the Auditor of the Civil List.

Since the 6th September 1826, in consequence of an Order then issued by the Treasury, the Requisitions for Furniture, accompanied by Estimates of the Expense, have been submitted by the Lord Chamberlain for the sanction of their Lordships, before the articles were ordered from the Tradesmen.

Whitehall, Treasury Chambers, 10th May 1828.

GEO. R. DAWSON.

Appendix, N° 4.

AN ACCOUNT of the Expense incurred for FURNITURE supplied and repaired, for the Houses of LORDS and COMMONS, the Courts of Law at Westminster, and the various Public Offices and Official Houses in London and Westminster, in each of the Five Years ending 5th January 1828; distinguishing the Amount of each Year.

	YEARS					TOTAL of Five Years.
	1823:	1824:	1825:	1826:	1827:	
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Under the direction of the LORD CHAMBERLAIN'S DEPARTMENT:						
House of Lords	1,742 1 7	2,438 9 7	4,562 5 8	13,954 1 3	4,250 3 9	26,947 1 10
Official House of the Clerk of the Parliament	269 10 10	10 15 3	4 6 6	4 11 –	– – –	289 3 7
Official House of Assistant Clerk of the Parliament	154 1 5	1 15 9	4 1 3	100 3 9	13 12 10	273 15 –
Parliament Office	50 1 10	56 8 6	45 19 6	49 2 3	234 18 3	436 10 4
House of Commons	1,031 12 6	1,056 12 –	1,588 11 2	4,767 16 4	1,492 3 3	9,936 15 3
The Speaker's House	365 – 10	1,792 15 9	866 16 7	635 14 8	749 12 8	4,410 – 6
Chief Clerk of the House of Commons House	56 14 10	30 8 5	22 3 3	7 9 6	30 18 6	147 14 6
Clerk Assistant of the House of Commons House	– – –	1 2 6	– 18 –	– 5 –	38 13 –	40 18 6
Clerk of the Journals of the House of Commons House	10 2 3	14 3 2	13 14 3	12 3 –	– 16 3	50 18 11
Secretary of State, Foreign Department, including the Official Residence	1,099 5 5	4,217 17 6	3,494 8 7	8,050 13 2	1,867 5 10	18,729 10 6
Secretary of State, Home Department	265 14 11	546 15 3	1,427 8 6	1,037 3 –	751 8 10	4,028 10 6
Secretary of State, Colonial Department	275 5 11	3,953 6 1	1,135 14 2	820 18 10	977 13 3	7,162 18 3
First Lord of the Treasury's House, occupied by the Chancellor of the Exchequer	1,209 5 2	563 13 11	350 13 10	857 12 9	311 3 6	3,292 9 2
Chancellor of the Exchequer's House, occupied by one of the Secretaries of the Treasury	94 18 5	608 – 3	29 2 3	307 15 –	25 18 –	1,065 13 11
Court of Chancery	– – –	148 11 –	814 4 4	1,527 14 9	515 3 7	3,005 13 8
Court of King's Bench	91 19 –	117 – –	670 4 8	3,490 12 1	359 5 5	4,729 1 2
Court of Common Pleas	86 10 6	91 6 3	585 – 6	1,717 5 9	154 10 5	2,634 13 5
Court of Exchequer	89 6 –	113 12 8	854 2 4	1,968 14 8	316 8 8	3,342 7 4
Vice Chancellor's Court	– – –	– – –	709 4 2	229 7 3	282 14 4	1,121 5 9
New Palace Court	71 5 4	182 8 9	157 5 8	86 13 8	– – –	497 13 5
Carried forward £.	6,962 16 9	15,945 2 7	17,336 5 2	39,625 17 8	12,272 10 4	92,142 12 6

Appendix, N° 4—*continued.*

The Lord Chamberlain's Department—*continued.*	YEARS 1823: £. s. d.	1824: £. s. d.	1825: £. s. d.	1826: £. s. d.	1827: £. s. d.	TOTAL of Five Years. £. s. d.
Brought forward	6,962 16 9	15,945 2 7	17,336 5 2	39,625 17 8	12,272 10 4	92,142 12 6
India Board	955 19 6	763 16 6	737 2 9	529 9 9	283 7 10	3,269 16 4
Board of Trade	51 1 3	7 5 –	15 16 –	4,026 1 10	1,640 4 8	5,740 8 9
Council Office	133 9 9	238 7 8	77 13 –	103 12 6	4,348 13 8	4,901 16 7
State Paper Office	5 4 –	11 5 6	39 3 –	67 8 6	69 16 6	192 17 6
Auditor of the Civil Lists' Office	- - -	8 12 6	– 10 –	- - -	21 2 –	30 4 6
Auditor of the Land Revenue's Office	- - -	1 7 –	– 10 –	29 12 –	29 18 3	61 7 3
Commissariat Office	- - -	20 12 8	6 17 6	15 8 –	108 11 7	151 9 9
Almonry Office	24 2 9	5 9 3	- - -	43 10 –	140 6 7	213 8 7
Augmentation Office	4 5 6	4 14 6	- - -	- - -	- - -	9 – –
Office of Works	110 16 9	3 5 –	19 11 –	15 14 –	- - -	149 6 9
Whitehall Chapel	357 14 11	184 19 –	216 2 6	182 15 6	190 7 8	1,131 19 7
Lieutenant Governor's House in the Tower	14 18 –	- - -	57 17 6	- - -	286 2 6	358 18 –
Under the immediate Order of The TREASURY:						
The Treasury	378 19 10	483 15 3	585 17 10	297 8 6	776 10 –	2,522 11 5
Under the direction of the several REVENUE BOARDS:						
Customs	854 15 9	588 4 2	636 12 6	1,313 16 2¼	493 8 –½	3,886 16 7¼
Excise	505 16 6	201 10 –	197 6 –	112 10 –	223 4 –	1,240 6 6
Stamps	138 14 6	75 17 10	400 9 11	293 11 8	113 15 8	1,022 9 7
Taxes	39 8 1	153 5 3	15 16 6	75 2 1	37 11 2	321 3 1
Post Office	481 11 8	361 17 6	612 16 8	472 5 5	542 2 2	2,470 13 5
Under the direction of the SURVEYOR GENERAL OF WORKS:						
The Army Pay Office, The Paymaster General's House, The Office for Military Boards, The Chaplain General's Office, The Comptroller's Office, The Guard Rooms, The Orderly Rooms, The Store Rooms, The Recruit Houses, The Judge Advocate General's Office, The Office of the Recruiting Department, The Office for Military Accounts, The Army Medical Board, The Record Office in the Tower, The Royal Gallery, Pall Mall, The Exchequer Offices, The National Debt Office	1,338 17 6	1,721 3 8	1,518 3 7	1,414 14 7	671 7 6	6,664 6 10
Under the direction of the BOARD OF ORDNANCE:						
The Ordnance Office in Pall Mall and at the Tower; the Office of the Inspector General of Fortifications; the Barrack Offices in Pall Mall and the Tower; and the Offices at the Military Depôt, Tooley-street.	989 11 7	334 9 4	478 10 7	304 19 6	275 15 1	2,383 6 1
Under the direction of The ADMIRALTY:						
The Admiralty	152 1 –	106 1 10½	194 4 3	185 17 6	330 8 5½	968 13 1
The Navy Office	827 8 5	750 3 5½	1,280 1 5	1,089 10 1½	812 19 4	4,760 2 9
The Victualling Office	234 12 –	328 11 6	1,526 19 6	766 – 8	1,087 12 2	3,943 15 10
The Navy Pay Office	909 16 11½	544 – 7	527 9 8½	850 5 2	791 7 –¼	3,622 19 5¼
The Royal Marine Office	- - -	195 11 9	- - -	- - -	- -	195 11 9
TOTAL £.	15,472 2 11½	23,039 9 4	26,481 16 10½	51,815 11 1¾	25,547 2 2¼	142,356 2 6

Whitehall, Treasury Chambers, 2d June 1828.

GEO. R. DAWSON.

Appendix, N° 5.

RETURN of the Number of Houses and other Buildings which are under the superintendence of the Commissioners of the Land Revenue, and Woods and Forests; and of which the Expenses of repairs are defrayed out of the Funds collected by them; describing their Situations, and the purposes for which they are used, and classifying them under different Heads.

The Office in Whitehall Place, for transacting the business of the United Department of His Majesty's Woods, Forests, and Land Revenues.

The official Residence of the First Commissioner, adjoining to the said Office.

WINDSOR FOREST:

Cranbourn Lodge.
Bagshot Lodge.
Swinley Lodge.
Dog Kennel on Ascot Heath.
The Huntsman's House adjoining the Dog Kennel.
The Woodmen's Cottages.

WINDSOR GREAT PARK:

The Royal Lodge.
The Keepers' Lodges.
The Chinese Temple and Bridge at Virginia Water.
The Nurseryman's Lodge at the King's Nursery.
The Park Walls and Iron Railings.

WINDSOR LITTLE PARK:

The Ranger's Lodge.
The Keeper's Lodges.
The Park Walls.

RICHMOND PARK:

The Ranger's Lodge.
The Thatched House Lodge.
The White Lodge.
The Lodge inhabited by Lady Pembroke.
The Keepers' Lodges.
The Park Walls.

HAMPTON COURT PARK:

The Stud House, now the Ranger's Lodge.
The Keeper's Lodges.
The Buildings and Paddocks for the Stud Establishment.
The Park Walls and Iron Railings.

BUSHY PARK:

The Ranger's Lodge.
The Pheasantry.
The Keeper's Lodges.
The Park Walls.

GREENWICH PARK:

The Ranger's Lodge.
The Keeper's Lodges.
The Park Walls.

ST. JAMES'S AND HYDE PARKS:

The Superintendent's Lodge.
The Keeper's Lodges.
The Park Walls, Bridges, and Iron Railings.

NEW FOREST:

New Park Lodge.
The King's House at Lyndhurst.
The Under Keepers' Lodges.
The Woodmen's Cottages.

Appendix, N° 5—*continued.*

PARKHURST FOREST:
The Woodmen's Cottages.

DEAN FOREST:
The Deputy Surveyor's Lodge.
The Assistant Deputy Surveyor's Lodge.
The Keeper's Lodges.
The Woodmen's Cottages.

HIGH MEADOW AND DOWARD WOOD ESTATES:
The Woodmen's Cottages.

WHITTLEWOOD FOREST:
Sholebrook Lodge.
The Keepers' Lodges (one of whom is Deputy Surveyor.)

SALCEY FOREST:
The Deputy Surveyor's Lodge.
The Woodmen's Cottage.

BERE FOREST:
The Deputy Surveyor's Lodge.
The Woodmen's Cottages.

ALICE HOLT AND WOOLMER FORESTS:
The Deputy Surveyor's Lodge.
The Woodmen's Cottages.

DELAMERE FOREST:
The Deputy Surveyor's Lodge.
The Woodmen's Cottages.

THE CHOPWELL WOODS:
The Superintendent's Lodge.
The Woodmen's Cottage.

THE ELTHAM AND GILLINGHAM WOODS:
The Superintendent's Lodge.
The Woodmen's Cottage.

WHICHWOOD FOREST:
The Keeper's Lodges.

THE before mentioned Buildings are repaired under the orders of the Surveyor General of Works, with the exception of the Office in Whitehall Place, the official residence of the First Commissioner, the Lodges occupied by the Deputy Surveyors in the Forest, and the Woodmen's Cottages, which are repaired under the immediate direction of the Commissioners. The Expense of the whole, is defrayed out of the Funds of the Department of His Majesty's Woods, Forests, and Land Revenues.

Office of Woods, &c.
15th April 1828.

C. ARBUTHNOT,
W^M DACRES ADAMS,
HENRY DAWKINS,
Commissioners of His Majesty's Woods, Forests, and Land Revenues.

Appendix, N° 6.

ESTIMATES and Items of Expense relating to the Building of BUCKINGHAM PALACE.

	£.	s.	d.	£.	s.	d.
Estimates, 20th June 1825	230,400	–	–			
Exclusive of Chimney Pieces, Parquette and best Floors, Scagliola Columns, Chimney Pieces, Wood Carving Great Stairs, Gilding State-room Doors, and other things from Carlton House and Buckingham House.						
Estimates, 10th October 1825; Ornamental Water Gardens, forming Grounds for Planting, Reservoir at Hyde Park Corner, laying on Water, &c.	22,290	–	–			
				252,690	–	–
Estimates, 12th February 1828, of Articles stated to be omitted in the former Estimates.						
External Sculpture to House	16,425	–	–			
Marble Chimney Pieces	18,970	–	–			
Parquette Floors, inlaid Floors, &c.	12,631	–	–			
State-room Doors, and Doors in King's Apartments	4,400	–	–			
Marble Floors in Hall, Grand Stairs and Gallery, exclusive of Marble	2,967	–	–			
The like in open Gallery over Portico	290	–	–			
The cost of Marble imported, and on the Sea	19,800	–	–			
Extra unforeseen works in Foundation	900	–	–			
Temporary Sheds, Hoards, Stone-houses, to be removed or sold at the end of the work	2,000	–	–			
Raising Reservoir at Hyde Park Corner	300	–	–			
Hiort's Patent Flues	600	–	–			
				79,283	–	–
Estimates, 12th February 1828.						
Brass Gates and Railing, instead of iron				6,900	–	–
Brass Handrails to Great Staircase, instead of iron gilt				3,000	–	–
Brass Capitals to Statuary Columns (104 in number) instead of Scagliola gilt				1,560	–	–
Inlaid work to Pavement in Hall and Gallery				800	–	–
Enriched Ceiling to thirteen State Rooms	13,600	–	–			
D° to eight Rooms in private Rooms to Flower Garden	1,800	–	–			
D° to Picture-Gallery in North Wing	900	–	–			
D° to Hall and Staircase	3,000	–	–			
D° to the two Galleries	3,000	–	–			
				22,300	–	–
Gilding to those Ceilings:						
Eighteen Scagliola Columns				900	–	–
Eighteen Metal Capitals to d°				540	–	–
Mahogany Shutters and Plate Glass to all the State Rooms, to answer Doors				4,200	–	–
Patent Spagniolettes to all the Windows throughout the body of the building				400	–	–
Scagliola Dado to all the State Rooms on both the Floors				3,000	–	–
Scagliola Walls to Staircase, Hall and Lower Gallery				4,000	–	–
Framed Wainscoting for Hangings in all the State Rooms, in Picture Gallery, and in the rooms of ground and principal Floor in the Apartments towards the Flower Garden				3,353	–	–
North Wing, and the Apartments next the Flower Garden				25,007	10	9
South Wing				22,271	12	–
Sundries (contingencies to both Wings)				2,720	17	3
			£.	432,926	–	–

Appendix, N° 7.—AN ACCOUNT of the Sums expended, or estimated to be expended upon the Entrance Hyde Park, and upon the Bridge over the Serpentine River; and also upon the Arch forming the of the Architects employed, and the Authorities

DESCRIPTION OF THE BUILDING, OR OTHER WORK.				AMOUNT of ESTIMATES. £.	s.	d.
LODGES, GATES, &c.						
For a new Lodge at Cumberland Gate				2,006	3	2
For additional Foot Gates and Lamp Posts on each side of the Gate presented by Mr. Hope				465	6	6
For two new Lodges at the end of Stanhope-street				5,000	–	–
Iron Gates to - - - d°						
For a new Lodge at the end of Grosvenor-street				3,000	–	–
Iron Gates to - - - d°						
Fountain				–	–	–
For a Sewer and Cess Pool to drain Lodges and Roads				106	–	–
For an Iron Post and Rail Fence on both sides of the Road, from Hyde Park Corner to Grosvenor Gate, and on one side of the Road from Grosvenor Gate to Cumberland Gate; and also round the Statue, and towards the Serpentine River				–	–	–
For a new Lodge at Hyde Park Corner	£. 2,151	1	3			
Entrance Façade (without Sculptures)	9,342	14	6			
Iron Gates to - - d°	1,482	4	8			
Carvings on the Building	1,051	12	–			
Iron Railing, Candelabra and Piers	1,922	12	6			
Bas Relief by Mr. Henning	1,000	–	–			
Pavings	915	17	11			
				17,866	2	10
For new Lodges and Entrance Arch to the Palace Gardens from Piccadilly, (without Sculptures)	19,291	6	–			
Iron Gates to - - - d°	1,584	–	–			
Iron Railing, Candelabra and Piers, including Gates for the Public Entrance to Constitution Hill	1,155	–	–			
Rough Stone Terrace Walls on the South and West sides of the Arch	2,244	–	–			
Carvings on the Entablature and Ceiling of the Archway	2,699	–	–			
Military and Naval Trophies on the Walls behind the Columns; Bas-relief on Attic	5,965	–	–			
Eight Statues to surmount the Arch	1,260	–	–			
Pavings	784	11	2			
				34,982	17	2
Payments to a Clerk of the Works, for superintending the whole of the above				–	–	–
For a new Boat-house on the Serpentine River				590	–	–
For a new Bridge over the Serpentine River				36,500	–	–
For deepening the Upper Level of the Serpentine, and embanking, &c. the lower level, for the purpose of uniting the two waters	£. 2,071	–	–			
For securing the Magazine, by building ha ha walls round same	1,500	–	–			
For a new Sewer to carry off the Water from the Park Keeper's Cottage	360	–	–			
				3,931	–	–
ROADS, RIDES, MALLS, &c.						
For putting the Roads, Rides, Drives, Malls, Walks, Drains, Grates and Cess Pools into repair, including the Bird Cage Walk and Grand Parade, and forming a new Footpath on the South side of Constitution Hill, and raising that on the North side				5,813	1	6
For forming a New Road from Cumberland Gate to Kensington Gardens, and a new Road and Footpath from the North East corner of the Gardens, to the Serpentine River, to form a junction with the Ring Road; continuing the same along the side of the Serpentine, through the Gardens occupied by Mr. Baker; cleaning out the Mud, and forming the Mall on the South side of the River, and widening the Ring Road near the Statue				4,241	3	1
For forming and widening the Walk from Cumberland Gate, and making a New Road, Malls, &c. from Grosvenor Gate to the Statue				2,860	–	11
For cleaning out the Canal in St. James's Park, and making new Drains and Cesspools				4,200	–	–
For removing the old Park Walls in Piccadilly, Park-lane, and along the Knightsbridge Road and opposite Connaught-place, and erecting Iron Railing in lieu thereof; and inclosing Ground for the ornamental Garden at the back of Hamilton-place				7,692	16	–
For laying out and planting the Garden at the back of Hamilton-place				–	–	–

Office of Woods, &c.
May 14th, 1828.

into Hyde Park, adjoining the Duke of Wellington's house; upon the several Lodges, Buildings and Gates in Entrance to the Gardens of His Majesty's Palace in St. James's Park: together with the Names under which the Works were undertaken.

AMOUNT Expended. £.	s.	d.	WORKS not done upon Estimates. £.	s.	d.	Whether still in progress, or completed.	NAME of ARCHITECT or other Professional Person employed.	Under what Authority undertaken.	OBSERVATIONS.
2,151	10	1½	-	-	-	completed - -	Decimus Burton, Esq. - -	Treasury.	
429	8	8	-	-	-	d° - -	d° - -	d°	
5,062	7	3½	-	-	-	d° - -	d° - -	d°	
2,929	8	3½	-	-	-	d° - -	d° - -	d°	
-	-	-	340	-	6¾	d° - -	d° - -	d°	
106	-	-	-	-	-	d° - -	d° - -	d°	
-	-	-	*6,500 paid			d° - -	d° - -	d°	* This Fence was contracted for at £. 19. 17. 6. per ton, for the Posts, and 1/9 per foot lineal, for the Rail; a small balance is yet unpaid, (about £. 100.)
17,069	1	9½	-	-	-	d° - -	d° - -	d°	
20,085	19	11¼	-	-	-	still in progress -	d° - -	d°	
376	19	6	—			—	—	—	
639	6	5½	-	-	-	completed - -	d° - -	d°	
35,000	-	-	-	-	-	The Works connected with this Bridge are completed, but Bills having been delivered in to the Commissioners of Woods, &c. by the Contractors, showing a considerable exceeding of Expense beyond the Amount of the Estimates, the final settlement of those Bills awaits the result of explanations which are now pending between the Commissioners and the Messrs. Rennie - - -	Messrs. Geo. and John Rennie.	d°	
-	-	-							
5,131	13	9	-	-	-	completed - -	Jas Mc Adam, Esq. - -	d°	Although not called upon by the Committee to furnish an Account of the Expense occasioned by the Works in St. James's Park previous to those now under the direction of Mr. Nash, it has been felt that it would be satisfactory to the Committee to have information comprising the whole of what was done both in Hyde and in St. James's Park. For this reason, the details of the whole are here given.
3,755	8	4	-	-	-	d° - -	d° - -	d°	
2,431	13	3	-	-	-	d° - -	d° - -	d°	It is known to the Committee, through the Evidence of Mr. Arbuthnot and of Mr. Nash, that the *present* Improvements in Saint James's Park, will according to Mr. Nash's Estimate; (he having the superintendence and management of all that is there going on) cost £. 19,253, of which about £. 10,000 has been already paid.
3,878	5	9	-	-	-	d° - -	d° - -	d°	
7,526	2	8	-	-	-	d° - -	Executed under the Surveyor Gen[l] of Works	d°	
-	-	-	1,358	2	11	d° - -	Jn° Nash, Esq.	d°	

C. ARBUTHNOT,
W. D. ADAMS,
HENRY DAWKINS,
Commissioners of His Majesty's Woods, Forests and Land Revenues.

Appendix, N° 8.

ACCOUNT of the Expense of building and completing the NEW POST OFFICE, including the Purchase of the Ground.

	£.	s.	d.	£.	s.	d.
Amount paid to the 5th July 1827	118,347	15	5			
Sum required to finish the Building, including Accounts under examination, and unpaid	81,652	4	7			
TOTAL, being the Amount of the original Estimate, exclusive of Furniture, &c. £.				200,000	–	–
It is conjectured that the expense of providing Grates, Presses, Desks and Fittings of different kinds, necessary for carrying on the business of this extensive Department, including Furniture and a Turret Clock, will amount to about the sum of	25,781	10	10			
N. B.—There are upwards of 170 Rooms in this Building, all of which will be nearly in constant use. For many of these no instructions have yet been received, and the above expense could therefore only be calculated with reference to those Rooms which have already been arranged for business.						
Estimate for laying on and supplying Gas	3,855	13	–			
Amount of Expenses, not included in original Estimate				29,637	3	10
TOTAL Amount of Building, &c. £.				229,637	3	10
Purchase of Ground, &c.						
Amount expended in providing the Site, under Act of 55 Geo. 3. c. 91	240,000	–	–			
D° under the authority of the Treasury	52,056	–	–			
(Of which one-third, £. 97,352. was borne by the City of London.)						
	292,056	–	–			
Amount since expended in minor Purchases under the authority of the Treasury	7,303	6	6			
TOTAL Amount for providing the Site				299,359	6	6
TOTAL Amount which the Post Office, when finished and fit for occupation, will probably cost the Public, including the Purchase of the Site of Ground £.				528,996	10	4

Office of Works, 5th May 1828.

B. C. Stephenson.

Appendix, N° 9.

COPIES or EXTRACTS from the several Letters or Minutes of the Treasury relating to the ALLOWANCE OF 5 PER CENT. to Mr. Wyatville and Mr. Nash, respectively, upon the Expenditure incurred for Windsor Castle and the King's Palace in Saint James's Park.

From the Surveyor General of the Office of Works to the Secretary of the Treasury.

Sir, Office of Works, 14th Dec. 1825.

IN obedience to the commands of the Lords Commissioners of His Majesty's Treasury, communicated to me by their Lordships minute of the 5th August last, I herewith transmit the accounts of Mr. Wyatville for the Buildings executing under his directions at Windsor Castle in the quarter ending the 5th July last; which have been examined agreeably to the rules and regulations of this department, as far as the same could apply. It is directed by these regulations that the architects attached to the office, are only to receive 3 per cent for their professional trouble upon such new buildings as shall be executed by them upon the public account; but Mr. Wyatville has been employed without any reference to the above rules and regulations, and he has charged the usual commission of 5 per cent upon the works at Windsor Castle, as well as the expense of measuring, which, in private business is included in the 5 per cent, but he has made no charge for journeys and travelling expenses, which would be allowed, and which may perhaps be equivalent to the expense of measuring, but that can only be ascertained by future calculations.

J. C. Herries, Esq.
&c. &c. &c.

(signed) *B. C. Stephenson.*

From Mr. *Wyatville,* to the Secretary of the Treasury.

Sir, Windsor Castle, July 4th, 1826.

IN answer to your letter dated 6th of May last, by command of the Lords of the Treasury, I have to acknowledge that the amount specified therein, for the works at Windsor Castle, has been regularly paid.

In regard to the observations respecting the charge for measuring, I conclude that it was made on the former part of the accounts by the Office of Works, and before their Lordships minute was acted upon, by which the measurer was appointed by and under the orders of that office, and that it is hereby answered.

But I feel it necesary to declare, that I have never paid for measuring out of my commission in the various magnificent concerns that have been entrusted to my care; nor can I learn that any one in a superior rank of the profession has done so; at the same time it is not unlikely, nor improper, that a young man beginning business, or one who has employment for himself or perhaps one clerk only, may engage in the measuring of works done under his direction, but it is much to be doubted whether or not it is advantageous to the employer.

Again, so far from charging any thing not borne out by my practice in private business, I must repeat for their Lordships consideration, that I have omitted to charge a variety of extra matters, and all travelling expenses, and have rejected all the advantages that are to be obtained in private business; and I shall not have the least difficulty in proving, should it ever become necessary, that the extra pecuniary advantage of my employment at Windsor Castle is very trifling when compared with my previous private concerns.

Feeling that the eyes of the nation are on the works, I have considered the honour and glory of deserving the approbation of my King and country as my greatest reward.

To S. R. Lushington, Esq.
&c. &c. &c.

(signed) *Jeffry Wyatville.*

From the Surveyor General of the Office of Works to the Secretary of the Treasury.

Sir, Office of Works, 16th Sept. 1826.

I HAVE the honour to acknowledge the receipt of your letter dated 31st July last, transmitting for any observations I might have to make thereon, a letter from Mr. Wyatville, relative to the charges for measuring the works executing at Windsor Castle; in answer to

which I have the honour to acquaint you, for the information of the Lords Commissioners of His Majesty's Treasury, that it may not have been customary for Mr. Wyatville in his private practice to pay for measuring out of his commission of 5 per cent; yet upon enquiry I have been informed the following gentlemen to whom I referred upon this occasion, namely, Mr. Soane, Mr. Smirke, Mr. Seward, Mr. Cockerill, Mr. Pilkington and Mr. Hardwick, have not in their practice made any charge for measuring the works they have been employed upon, considering this expense to be included in their commission of five per cent.

I take the liberty, however, of submitting for their Lordships consideration, that the expense of measuring and making up the Windsor Castle building accounts will not be charged against Mr. Wyatville, he having agreed not to make any demand for his numerous journies, provided he was allowed the full commission of 5 per cent; and which, considering how very frequently his attendance has been, and is required at Windsor, and at the Royal Lodge, may not be deemed an improvident arrangement.

W. Hill, Esq.
&c. &c. &.

(signed) *B. C. Stephenson.*

Treasury Minute, dated 6th October 1826.

(17881.)

Read Report of the Surveyor General of Works, dated 16th ult. on a letter from Mr. Wyatville, relative to the charges for measuring the works executing at Windsor Castle, wherein he submits that the expense of measuring and making up the Windsor Castle building accounts will not be charged against Mr. Wyatville, he having agreed not to make any demand for his numerous journies provided he was allowed the full commission of 5 per cent.

My Lords resume the consideration of the several former papers upon this subject.

Write to the Surveyor General of Works, acquainting him, that under the circumstances mentioned, that Mr. Wyatville does not charge for journies and some other extras (which architects are usually considered as entitled to charge) My Lords concur with him, that the expense of measuring the works now performed under the direction of the Office of Works should not be charged against him.

Extract from Treasury Minute, dated 23d June 1826.

(1491.)

With respect to the disallowance of the charge of 5 per cent upon the amount of the expenditure for the works carried on at the King's Palace in Saint James's Park, which has been made by Mr. Nash for his own remuneration; My Lords concur with the Surveyor General in opinion, that such a charge could not be admitted on the part of a person superintending a Public work in the character of one of the established and salaried architects of the Board of Works, whose commission is limited to 3 per cent. But they are informed, after having made further inquiry into this subject, that the employment of Mr. Nash, in this instance, is of a very peculiar and distinct description, involving labour and responsibility differing greatly in character and in degree from what is imposed upon the architects who superintend the public buildings executed under the authority and directions of the Board of Works; and as it appears that this employment is analogous to that of Mr. Wyatville in the restoration and alteration of Windsor Castle, who receives the full commission allowed to architects in ordinary cases, My Lords consider, that Mr. Nash should be placed on the same footing in that respect with Mr. Wyatville, but on the condition that while employed on this special service he is to be considered as being entirely detached from the service of the Board of Works, both with respect to salary, and to the superintendence of any new works which may be undertaken and directed by the Surveyor General; while on the other hand, he is to continue to afford to the Surveyor General the benefit of his professional opinion and advice, whenever called upon so to do, without remuneration.

A LIST of PAPERS presented to this Committee, and preserved among the Committee Papers of this Session.

Custom House:—An Account of the sums of money paid for the building of the New Custom House in 1813 up to the present time; distinguishing each year.

Copy of Contract for building the New Custom House, London.

A Statement of the time when the Custom House was begun, of the time when it was finished, of the total expense, and of the total sum received by Mr. Laing on account of commission; together with the date of the failure of the foundation.

Penitentiary at Milbank:—Return to an Order of this Committee, for an Account of all sums of money paid for the construction and repairs of the Penitentiary at Milbank, since the year 1813; distinguishing each year.

Bethlem Hospital:—The original estimate and actual cost of building the New Bethlem Hospital, and also the names of the architects.

New Hall, Christ's Hospital:—The original estimate and actual cost of building the New Hall in Christ's Hospital, and also the name of the architects.

The Royal Hospital of St. Katharine and Master's House, Regent's Park:—Statement of the original estimates, compared with the actual cost of the above buildings.

Foreign Office Buildings:—An Account of the sum or sums of money expended on the Foreign Office Buildings in Downing-street, together with the sum or sums of money expended in the purchase of Sir Robert Preston's House adjoining the same; and an Account of all Furniture purchased for the Mansion in Downing-street, from January 1824; stating from what funds the same have been expended.

The Building at Kew:—An Account of the produce of the materials of the building erected by His late Majesty at Kew, stating the order for pulling down and selling the same.

Mr. Smirke:—An Account of Mr. Smirke's expenses upon a journey to Paris, to inspect and report upon the state and condition of the British Ambassador's residence in that city.

FIRST AND SECOND

REPORTS

FROM THE

SELECT COMMITTEE

APPOINTED

TO INQUIRE INTO THE AMOUNT OF ADVANCES

MADE BY THE

COMMISSIONERS

OF

PUBLIC WORKS IN IRELAND;

WITH THE

MINUTES OF EVIDENCE,

APPENDIX AND INDEX.

Ordered, by The House of Commons, *to be Printed,*
26 *June and* 27 *August* 1835.

Martis, 17° *die Martii*, 1835.

Ordered, That a Select Committee be appointed to inquire into the Amount of Advances made by the Commissioners of Public Works in Ireland, the Regulations under which they were made, the Purposes to which they have been applied, and the Amount of Repayments; to consider also the various Reports made by Committees and Commissioners on the subject of reclaiming Waste Lands in Ireland, and to what extent the suggestions which they contain have been complied with.

And a Committee is appointed, of—

Mr. Lynch.
Mr. Chancellor of the Exchequer.
Sir Henry Hardinge.
Mr. Spring Rice.
Sir Henry Parnell.
Sir Thomas Fremantle.
Mr. O'Connell.
Sir Richard Musgrave.
Mr. Wyse.
Mr. Morgan J. O'Connell.
Colonel Conolly.
Colonel Perceval.
Mr. Feargus O'Connor.
Mr. William Smith O'Brien.
Mr. James Loch.
Mr. Poulett Scrope.
O'Conor Don.
Mr. Anthony Lefroy.
Mr. James Grattan.
Mr. Robert Clive.
Lord Viscount Clements.
Sir Charles Coote.
Mr. Lowther Chapman.
Colonel Bruen.
Mr. Thomas Gladstone.
Earl of Kerry.
Sir Robert Bateson.
Mr. Bodkin.
Mr. Blake.
Mr. Christopher Fitzsimon.
Lord Viscount Castlereagh.
Mr. William Roche.
Mr. Sheil.

Ordered, That the said Committee have power to send for Persons, Papers and Records.

Ordered, That Five be the Quorum of the Committee.

Jovis, 19° *die Martii*, 1835.

Ordered, That Mr. Mullins be added to the Committee.

Veneris, 27° *die Martii*, 1835.

Ordered, That Sir Charles Lemon, Mr. Nicholl, Mr. Robert Palmer, Mr. Cumming Bruce, Mr. Jephson, Mr. Cornelius O'Brien and Mr. French, be added to the Committee.

Lunæ, 13° *die Aprilis*, 1835.

Ordered, That Mr. Feargus O'Connor and Colonel Perceval be discharged from further attendance on the Committee.

Ordered, That Sir William Brabazon and Mr. Dominick Browne be added to the Committee.

Martis, 19° *die Maii*, 1835.

Ordered, That Lord Viscount Morpeth, Lord Viscount Acheson, Major Macnamara, Mr. Edward Ruthven, Mr. Thomas Martin, Mr. Benjamin Smith and Mr. Bellew, be added to the Committee.

Jovis, 4° *die Junii*, 1835.

Ordered, That Mr. Barron and Mr. David Roche be added to the Committee.

Veneris, 26° *die Junii*, 1835.

Ordered, That the Committee have power to report from time to time, together with the Minutes of Evidence taken before them.

FIRST REPORT.

THE SELECT COMMITTEE appointed to inquire into the AMOUNT of ADVANCES made by the COMMISSIONERS of PUBLIC WORKS in *Ireland*, the Regulations under which they were made, the Purposes to which they have been applied, and the AMOUNT of REPAYMENTS; to consider also the various Reports made by Committees and Commissioners on the subject of reclaiming WASTE LANDS in *Ireland*, and to what extent the suggestions which they contain have been complied with;—and to Report from time to time to The House, together with the MINUTES of the EVIDENCE taken before them:——HAVE proceeded in the inquiries directed to be made, and have agreed to the following, being their FIRST REPORT:

THE Advantages derivable to Ireland and the United Kingdom from Public Works, having been heretofore frequently investigated for the information of The House and His Majesty's Government, Your Committee have been materially aided by the results of those investigations, and have limited their inquiries through individual Witnesses, as much as possible, to such persons acquainted with Irish affairs as they have found in London for other purposes, thereby restricting the expenses attendant on summoning witnesses from Ireland. They have also been considerably assisted by the annual Reports made by the Commissioners of the Board of Public Works in Ireland.

CONSTITUTION AND DUTIES OF THE BOARD.

The Irish Board of Public Works was constituted in 1831, by the Act 1 & 2 Will. IV. c. 33, and has been charged by the provisions thereof with the execution of the following objects:

1st. The management of a Fund of £.500,000, placed at its disposal, under the sanction of His Majesty's Treasury, for Loans in aid of Public Works, and individual outlay, for the purposes mentioned in the Act.

2d. The management of a Fund of £.50,000, for Grants in aid of the formation of Roads and Bridges, and small Piers and Harbours along the sea-coast.

3d. Inland Navigation.

4th. The Fisheries of Ireland, formerly under the superintendence of the late Directors General of Inland Navigation.

5th. Certain Roads and Bridges under the Act of the 6th Geo. IV. c. 101.

The Board consists of a Chairman and two Commissioners: the former and one of the latter have been military engineers, and the other a member of the late Board for auditing Army Accounts in Ireland; assisted by a Secretary, an Accountant, an Engineer, and a very moderate establishment of Clerks. This Board superseded five Boards, which had existed in Ireland previously to 1831,—the Board of Works for Dublin, the Board of Inland Navigation, a Board for lending Money from the Consolidated Fund, the Commissioners of Kingstown Harbour, and the Commissioners of Dunmore Harbour; and one of these Boards, that for Inland Navigation, had previously transferred to it the duties of a Board for promoting the Irish Fisheries. The whole annual expense of these Boards was nearly £.10,000. The actual annual expense of the establishment of the present Board of Public Works is £.5,500.

The following additional duties to those specified in the Act, have been committed to the present Board by his Excellency the Lord Lieutenant of Ireland, or by particular Acts:—

The charge of the Public Buildings in Dublin and the Phœnix Park.
Dunmore Harbour.
Kingstown Harbour.
Lunatic Asylums.
With many others of extensive but more temporary nature.

The charge of the Board's establishment, viz. £.5,500 per annum is defrayed out of the profit obtained by interest payable on Loans beyond the cost to Government.

LOANS.

When a loan is sanctioned by the Board of Works and the Lords of the Treasury in pursuance of the Act, advances are made on account of it; Exchequer Bills to the amount being handed to the party, who receives the premium, if any, arising on them.

The Board is authorized to lend money, with the sanction of the Treasury, to

Grand Juries,
Public Bodies,
Companies,
And Individuals;

For any of the following purposes:

Roads and Bridges,
Harbours,
Piers,
Docks,
Canals and Railways,
Mines and Quarries,
Drainage and Improvement of Estates,
Buildings, or other description of Public Works.

And by an Act of 1834, it was directed that the Board should advance £.100,000 to the Commissioners appointed under the Act of 1833, for managing Church Temporalities in Ireland.

The Act requires the loans made to Grand Juries to be on the security of presentments for levying the amount by half-yearly instalments of not less than £.10 per cent. per annum, of the sums lent, with an annual interest not exceeding £.5 per cent.

And

And loans for public works are to be made on the security of "the rates, rents, tolls, profits and receipts," repayable in twenty-five years by instalments, commencing immediately or (if the Board of Works and Lords of the Treasury shall so determine) in five years after the date of the first advance made on account of each loan, with interest at a rate not less than £.4 per cent. per annum, on the balance remaining due, payable annually. It is required in all these cases, except as to public bodies acting under the authority of an Act of Parliament, and where no dividend or profit is payable thereout to any person or persons, that "the rates, rents, tolls, profits and receipts" on the security of which a loan shall be made, shall be in amount at least double the interest required by the Board on the sum proposed to be advanced, or where no Tolls are in existence, that a sum not less than one-third part of the estimated costs should be expended, subscribed, or be secured or deposited to the satisfaction of the Commissioners.

And loans to *individuals* for drainage or other improvement of estates (which are limited to cases where it shall be proved to the Board that the works, when completed, will increase the value of the land at least £.10 per cent. on the sum proposed to be expended) are required to be repaid within three years after the expiration of the period to be fixed by the Board of Works for the completion of the improvement, with interest, payable half-yearly, of not less than £.5 per cent. per annum. It is necessary that a contract, in all cases of borrowing for such improvements, with two sureties, shall be entered into for the full and complete execution of the work within a period to be fixed by the Board not exceeding seven years.

With respect to all loans, the securities to the Board are to have priority over existing securities, if four-fifths in value of the incumbrancers agree, but not otherwise.

Securities are authorized to be taken in deposits or transfers of Bank or Government Stock, Exchequer Bills or India Bonds, in lieu of the other securities specified in the Act, or as collateral thereto.

And they are authorized to take personal security as a collateral security, and also to make loans, not exceeding £.1,000 for one work, on personal security alone, provided the parties shall have previously expended, subscribed, secured or deposited, a sum equal to one-half of the estimated cost of the proposed work; such loans to be repayable within five years from the advance thereof, with interest of not less than £.5 per cent. per annum, payable half-yearly. The total of loans on personal security only cannot exceed £.50,000 at any one time.

By the 18th section of the Act, it is provided, that all persons, public bodies or companies (except Grand Juries) borrowing money under the Act, or becoming security for others, shall, besides the securities in each case respectively directed to be taken, become bound to His Majesty, by writing, obligatory in such penal sum as shall be directed by the Commissioners; and by the 48th section, power is given to the Company to sue Proprietors or Shareholders of unfinished works for money to complete the same, in case the expense exceeds the estimate.

The amount of loans approved by the Board of Works, some of which are not definitively sanctioned, is £.497,170. 18*s*. The amount of the loans sanctioned is £.351,770. 18*s*. The amount of advances made on account of such loans (being in Exchequer Bills) is £.195,250.

And there is as yet to be lent, supposing all the loans approved of shall be sanctioned, and of which there is little doubt, only £.2,829. 2*s*. This residue is the sole amount for which the Board of Works can at present entertain applications.

All the loans already approved or sanctioned, except the loan of the £.100,000, have been agreed to on the terms and regulations specified in the Act. The loans to Grand Juries have been made, in many cases, subject only to interest at £.4 per cent. per annum, under the discretionary power vested by the Act in the Lords of the Treasury and the Board; and the loan of £.100,000 to the Commissioners of Church Temporalities has been made according to the terms of the Act of 1834; a loan entirely foreign to the purposes of the Act, and to the repayment of which, within a short poriod, Your Committee look with anxious solicitude.

The following statement of the objects for which loans have been obtained has been laid before the Committee by the Chairman of the Board:—

OBJECTS.	AMOUNTS.		
	£.	*s*.	*d*.
Roads	79,698	4	10
Bridges	49,412	13	2
Navigations	29,160	–	–
Harbours and Quays	111,950	–	–
Railways	80,000	–	–
Quarries and Culm-pit	9,500	–	–
Mines (Machinery)	2,000	–	–
Drainage	2,200	–	–
Court House	5,000	–	–
Hospital	2,500	–	–
Chapels (completing)	750	–	–
Dublin Wide-Streets	25,000	–	–
Ecclesiastical Commissioners	100,000	–	–
£.	497,170	18	–

Of these loans the sum of £.10,850 has been appropriated to individuals at the rate of £.5 per cent. per annum; and of that sum £.350 has been appropriated on personal security only.

The *Interest* on all the loans has in general been regularly paid; and it has been stated in evidence before the Committee, by Colonel Burgoyne, the Chairman of the Board, that the securities taken for the *Principal*, conformably to the terms of the Act, are such as to give hopes, as far as can be at present foreseen, of the repayment of the whole sum appropriated.

There has been already received, on account of the Principal, the sum of £.20,796. 19. 10., being, with two very trifling exceptions, all that has fallen due according to the terms of the loans.

GRANTS.

In addition to the power of lending Exchequer Bills to the amount of £.500,000, the Board of Works and Lords of the Treasury are empowered by the Act to make grants in aid of the construction of roads and bridges, and of small harbours, piers and quays, on the sea-coast, to the amount of £.50,000 out of the Consolidated Fund.

The

The Act requires the parties (excepting Grand Juries) who shall obtain such grants, to enter into the securities which shall be agreed upon, and pay a moiety of the estimated expense of the works, either in instalments or to the amount of the moiety, as the Board and Lords of the Treasury shall direct; and corporations, tenants in tail, and other persons having only particular or life interests, may mortgage their lands for raising such moiety, with priority over all charges and incumbrances.

The Board is also authorized to receive applications from Grand Juries for grants for Roads and Bridges; and the Grand Juries are authorized to raise their moiety of the contributions.

But no power is given to Grand Juries, or to individuals having only particular or life interests in lands, to raise or charge the moiety of contributions for small harbours, piers and quays.

In all cases of grants for small harbours, piers and quays, they must be situate on the sea-coast. And in all cases it is required that security shall be given that the person or persons making application shall defray such further sum beyond the estimated expense as shall be necessary to complete the road, bridge, quay or pier, according to the specification; and Grand Juries are required to defray the whole of such increased expenditure.

Of the whole amount of grants authorized, the sum of £. 32,708. 6. 2. has been appropriated to the following objects:

Grants for Roads - - - -	£.	30,067	12 2
„ Bridge - - - -		2,222	14 –
„ Piers and Quay - - -		418	– –
	£.	32,708	6 2

By an Act passed in the last Session of Parliament, the Commissioners are directed to expend the sum of £. 7,000 and upwards in the rebuilding of Portumna Bridge, on the Shannon, leaving at the disposal of the Board the sum of £. 10,000, or thereabouts only.

Among the remedial measures proposed for the improvement of Ireland, none can create less difference of opinion, or has been more universally urged by all parties and persons who have considered the subject, than the propriety of encouraging the execution of Public Works; and Your Committee fully coincide in the opinion, that there is every reason in justice and policy for extending in that country the public aid for such purpose, in a degree that does not admit of comparison with the considerations that would be the guide for other parts of the United Kingdom.

In advocating, however, on principle, a liberal support to such objects, Your Committee are fully aware of the necessity for a due consideration of the available means and resources of the Empire, which must restrict any positive national outlay within moderate bounds.

Your Committee are of opinion, however, that by legislative regulation, aid and encouragement, much good may be effected with a trifling gratuitous expense; by lending largely the support of the Government to the forwarding of Loans for works of ascertained public utility and on good security, and by making grants to a moderate extent for the prosecution of other objects of improvement of national importance beyond the means of individuals or of local communities, and in which they have no very immediate interest.

The Act of 1 & 2 William IV. cap. 33. was drawn up with these views, and Your Committee are happy to testify to the ability with which it was devised, as an improvement on every preceding system.

By concentrating the operations of various Boards, all more or less connected with Public Works, it gave the opportunity of regulating them with more economy and effect.

Establishments were much reduced, while greater and more efficient means became generally available.

The experiment has so far succeeded, and the funds are nearly exhausted. Your Committee strongly recommend an extension of the measure, with such modifications as experience has pointed out to be desirable.

In the course of the Inquiry made by Your Committee into the proceedings of the Board of Works, in applying the money placed at its disposal for loans and grants, various statements have been made, of the great advantages arising from these aids, as well as of advantages obstructed by the strictness of the terms by which the Act limits the Board and the Treasury in making loans and grants; and many suggestions of means for extending those advantages and removing those obstructions, with plans for the improvement of Ireland, by extending the powers and control of the Board of Works, have also been made to Your Committee, some of which Your Committee shall now proceed to place before The House, in the order of the respective objects of the Board's constitution to which they refer. In so doing, Your Committee do not conceive they are transgressing the limits and objects of the inquiry directed by The House.

AS TO THE EXPENSES OF THE BOARD.

It appears by the evidence of Colonel Burgoyne (652.), that the expenses of the establishment of the Board of Public Works in Ireland are defrayed by the profits on the loans; and as these expenses amount at present to upwards of £. 5,000 a year (654.), and may become greater, and as more than one-half of the duties performed by the Board are not within the Act (655.), it has been suggested, that, under the circumstances of Ireland which have required the adoption of this system of relief, it would be reasonable to recommend that the expenses of the Board shall not be charged on the loans; and as there is an annual appropriation of £.5,000 out of the Scotch Revenue, by Act of Parliament, for Public Works in Scotland (48 & 82.), which defrays the expenses of management in that country, and leaves a residue of £. 3,000 in aid of the Works (61.), Your Committee agree in the propriety and policy of this suggestion, and recommend it to the consideration of The House.

AS TO THE CONTROLLING POWERS OF THE BOARD.

Colonel Burgoyne has stated to the Committee that it would be important to give the Board of Works, under the direction of the Lords of the Treasury, a control over the County Surveyors employed by the Grand Juries, as they at present act independently (726.), and it would be for the advantage of the country that they should act on a uniform system in the execution of their duties, and under competent direction. He has also suggested that each Grand Jury (739.) should report to the Board of Works on the progress of all Public Works carrying on under its authority, for the purpose of enabling the Board of Works to ascertain the extent of all the operations of that kind going on throughout the country. Your Committee recommend both suggestions to the consideration of The House.

The

The attention of Your Committee has been directed, in the course of their inquiry, to a defect in the working of the Grand Jury system, as to the construction of new lines of roads passing through distinct counties. By an Act of Parliament passed in 1805, the Postmaster-General is empowered to have surveys made of mail roads that shall be considered desirable, which he then recommends to the Grand Jury; and he has a power, for one year, under an Act of 1834, of causing repairs to be made on mail roads, through the Board of Public Works. With reference to these powers, and the defect above referred to, it is deemed important to direct the attention of The House to the following statements in the Evidence.

451. "Col. *Burgoyne*.—I think some occasional compulsory power on the Grand Jury would be very desirable for forwarding public improvements in roads. I know of cases where very useful lines of road would be carried through a country, but for want of the power to pass through some very small portion of an individual county, which fancies its interests opposed to it, the whole measure has been defeated. There are cases where a shilling presentment has been refused in order to defeat the measure, and perhaps a very useful measure for the country. In such instances it would seem very desirable to have some powers to correct the evil. I have known instances of two counties presenting for a bridge, and if the plans of the two engineers employed had been followed, the two halves of the bridge would have been of different constructions and at different parts of the river."

543. "Can you suggest any scheme by which, when one party proposes to make a part of a general line of communication as far as it passes through that county, that an adjoining county could be compelled to continue such line through its territory?—With regard to roads, the only way it could be done is by a commission appointed by Government; Government officers, and gentlemen of a different part of the country, would perhaps be most satisfactory.

544. "Can you mention any instance within your own knowledge where such a provision as has been now suggested to you would be most desirable?—I can mention an instance where a road has been defeated for want of such a power. The Blessington turnpike trust has power to go to Carlow by a line which would be very advantageous to the country; but to carry it into execution it is necessary to pass through a small portion of the county of Kildare, whose Grand Jury have constantly refused to allow it, though only one shilling presentment was asked for; the consequence is, that a very improved communication from Dublin to Waterford, saving seven miles, is in a great measure defeated. There is another case where the county of Mayo has refused to carry on a great leading line of road, that would be very advantageous to the country in general, and which is already perfected up to the frontiers of that county."

On considering these important statements, Your Committee have no hesitation in suggesting that the Board of Works should be empowered to carry improved lines of roads through distinct counties, under regulations similar to those contained in the Act of 1834, for the erection of bridges connecting distinct counties; and Your Committee submit for the consideration of The House, whether the Act of 1834, for the repair of Mail Roads, might not be advantageously continued.

In cases where the entire charge of constructing the roads is to be borne by Government, it is considered but right that the Board of Works should have the power of undertaking and executing such Works, without reference to the Grand Jury.

In connexion with these suggestions, Your Committee beg further to state, that a useful power may be given to the Board, acting under the direction of the Government, of causing surveys to be made of lines of roads and other Public Works, for the purpose of suggesting improvements to Grand Juries and other public bodies; and in cases of applications

for loans, it is also suggested by Your Committee, that the Board of Works should send a surveyor in the first instance, for the purpose of avoiding the double expense of surveying, firstly, for the parties, and subsequently, for the Board, where a survey is not necessary for determining on the expediency of the Works, and where a deposit shall be made of a sufficient sum to pay for the survey. This recommendation Your Committee believe is to a great extent acted upon.

There is another object of great public importance to which Your Committee desire to recommend that the power of the Board of Works should be extended. By an Act of 1 & 2 Will. IV. c. 57, powers are given to undertakers, Grand Juries and individuals, for the reclamation and protection of lands on the banks of rivers and lakes, by sinking, embanking and removing obstructions; and these powers, though efficient and important, have not been carried into operation, from the want of enterprise, or want of confidence in persons to execute the Works; but were they conferred on the Board of Works, Your Committee are of opinion that the beneficial objects of the law would be speedily and safely accomplished: the interference of the Board to be called into operation by a requisition from the majority in value of the land proprietors interested; the Works to be completed under the direction of the Board; the benefit derived to each estate to be ascertained by a jury, and the charge of the Works to be allocated accordingly, becoming a lien on the land.

AS TO ROADS.

The formation of roads in Ireland, with the aid of Parliamentary grants, commenced in 1822; but in Scotland the formation of such roads was commenced in 1803. At present the Irish Board of Works is engaged in completing the construction of new roads in the districts of Mayo and Galway, but is not provided with funds for carrying them to an extent commensurate with the wants of the Western districts of Ireland, and the importance of such lines of communication to the Public, as they promote the improvement of the local population and enhance the resources of the revenue. The Board is also charged with the superintendence of the repair of Government roads in the counties of Clare, Cork, Galway, Kerry, Leitrim, Limerick, Mayo, Roscommon and Tipperary, extending, in all, to 581 miles (1004.), the expenditure on 334 of which, in 1834, amounted to £.5,255; and the whole charge is levied off the counties.

The Board of Works for Scotland (1 to 6.), constituted in 1803, for constructing roads and bridges in the uncultivated districts of that country, has constructed 874 miles of roads, and more than 1,000 bridges, and is now charged with superintending the repair of the roads thus formed, and of 300 miles of Government roads made in the same districts during the last century; for which repairs £.5,000 a year is paid out of the public revenue, as Your Committee have already observed, in aid of the sums raised by local taxation (50, 52, 81 and 111.) The local system of forming and maintaining roads in Scotland is very amply detailed in the Evidence of Mr. Loch, a Member of Your Committee, and in connexion with the prosecution of Public Works in Ireland, is particularly important.

Mr. Loch thus describes the effects produced in Scotland by the formation of the Government roads commenced in 1803:

203. "When I first became acquainted with the Highlands, the great proportion of the people, in place of being immediate tenants of the landlord, held of the different tacksmen. Since then almost all persons occupying land, and I do not confine my observations to Sutherland alone, though principally to it, have become

become immediate tenants to the landlord. They were extremely irregular in their habits, being poachers on the rivers and smugglers, and since then in Sutherland they have given up both, and have become most industrious workmen in every class of agricultural labour. It was necessary, at the period I mention, to get ploughmen from Elgin, and that side of the Moray Frith, and there was not a person who could build a stone wall, the ordinary mode of inclosing land in that country; but it is so much the reverse at the present moment, that almost every ploughman in the country is a native, and they are now the best builders of stone walls in the North, in consequence of which they are employed in all the adjoining counties. A great improvement has taken place also, arising from the greater extension of the English language. When the children on the coast-side formerly came out of school, though they were taught to read English in the school, they spoke nothing but the Gaelic language; now when they play after school hours on the coast-side, they all speak English. Nothing has tended so much to this as the institution of Gaelic schools, which were founded with the object of preserving that language; but the fact is, the moment persons have acquired the facility of reading Gaelic, they find it of no use, and immediately leave it, and teach themselves English.

204. "You say there were a kind of middle men when you first knew the country; how do you account for their being given up?—It was given up first of all from the feeling on the part of the landlord that it was his duty to have all persons on his estate holding immediately from himself; and from the change in the agriculture of the country, it was necessary that the tenant occupying the land should be freed from having his under tenants on the lands, which were then parcelled in what we call lots.

205. "Had the tacksmen leases?—They had all leases.

206. "How were they got out?—There were tenants at will under the middle men, and paid their rents under circumstances of the most grievous nature.

207. "Was it by an agreement between the tenant and the landlord that the middle men were got rid of?—At the termination of the lease the arrangement was always made to provide some situation for the lotters by the landlord, and then the farm was let to tacksmen, the lotters being otherwise provided for.

208. "You got them removed to other places?—We placed them in other places; sometimes a large farm was cut up, and each person got a portion of arable land to maintain himself, and then they were allowed to possess for 19 years, without paying any rent whatever, portions of land they brought into cultivation, in addition to such portion of arable land."

While on this part of the inquiry, Your Committée beg to call the attention of The House to a valuable Paper received from Mr. Scrope, a Member of the Committee, in which he proposes an allotment system to be resorted to for the protection of the poor occupiers of land along new lines of roads through unimproved tracts in Ireland. (*See* Appendix).

The outlay of the small grants heretofore made for those important Works in Ireland, have been productive of no less useful results than those described by Mr. Loch as having been obtained in Scotland; and Your Committee deem it advisable here to quote for the consideration of The House, the very apposite statements on the necessity and result of such works in Ireland, contained in the Report of the Select Committee of 1830, appointed to inquire into the condition of the Irish Poor, and other Public Reports before Your Committee.

"The fertile plains of Limerick, Cork and Kerry are separated from each other by a deserted country, hitherto nearly an impassable barrier. This large district comprehends upwards of 900 square miles; in many places it is very populous. As might be expected under such circumstances, the people are turbulent, and their houses being inaccessible for want of roads, it is not surprising that during the disturbances of 1821 and 1822 this district was the asylum for Whiteboys, smugglers and robbers, and that stolen cattle were drawn into it, as to a safe and impenetrable retreat. Notwithstanding its present desolate state, this country contains within itself the seeds of future improvement and industry." (Griffith, in 1822.)

Mr. Griffith reports on the *same* district, in 1829, after the execution of certain road works:

"A very considerable improvement has already taken place in the vicinity of the roads, both in the industry of the inhabitants, and the appearance of the country; upwards of 60 new lime-kilns have been built; carts, ploughs, harrows and improved implements have become common; new houses of a better class have been built, new inclosures made, and the country has become perfectly tranquil, and exhibits a scene of industry and exertion at once pleasing and remarkable. A large portion of the money received for labour has been husbanded with care, laid out in building substantial houses, and in the purchase of stock and agricultural implements; and numerous examples might be shown of poor labourers possessing neither money, houses nor land when first employed, who in the past year have been enabled to take farms, build houses, and stock their lands."

In a Report on a part of Kerry, Mr. Nimmo states, in 1824, that—

"A few years ago there was hardly a plough, car or carriage of any kind; butter, the only produce, was carried to Cork on horseback; there was not one decent public-house, and only one house slated and plastered in the village; the nearest post-office 30 miles distant. Since the new road was made, there were built in three years upwards of 20 respectable two-story houses; a shop with cloth, hardware and groceries; a comfortable inn, a post-office, bridewell, new chapel, a quay covered with limestone for manure, a salt-work, two stores for oats, and a considerable traffic in linen and yarn."

Upon this subject the following communication has been made to us by Mr. O'Connell, a Member of the Committee.

"The place referred to by Mr. Nimmo is now called the town of Cahir Caveen. At the first period he alludes to, there was but one or two ploughs in the barony, or certainly only two cars. The quantity of wheat grown was confined to the consumption of a few families amongst the more wealthy classes, not exceeding six; and oats were grown in but a little larger proportion.

"Since 1824, the date of Mr. Nimmo's Report, the houses in Cahir Caveen have increased from 20 to upwards of 250. There are several shops, and many persons engaged in the import and export trade. The inhabitants, in 1831, exceeded 1,100; they are now more than 1,300. There are from 10 to 15 new houses being built. A new and enlarged Bridewell, with a Petty Sessions Court, has been built. A well-supported dispensary, and a large and exceedingly well-regulated fever hospital, has been built outside the town, affording the greatest advantages to the poorer classes. There was no medical person resident in 1824; there is now a large and exceedingly well-supplied apothecary shop, and a skilful resident physician.

"The number of cars has multiplied so much, that the Writer has in a single day met upwards of 1,000 cars employed in various works in that country, in which he *knows* there were but two cars a few years ago.

"A bolting-mill has been erected near Cahir Caveen, at an expense of from £.4,000 to £.5,000; and the quantity of wheat grown in the country has multiplied more than 200-fold, and of oats more than 1,000-fold.

"All these advantages, and they are only beginning to develop themselves, have originated in the making of about 70 miles of new road on a level line."

Of a part of Mayo, Mr. Nimmo remarks, in 1829, on the improvements arising from a new line of road:—

"At Belmullet the advance is quite surprising; the place only commenced four years ago; it now consists of about 70 respectable houses, &c. Five ships were loaded with grain and kelp; iron hoops and coal were imported; spirits, beer and wine, British manufactures and tea and sugar were sold; the produce of the fisheries were admitted to a market, and the population, formerly crowded in the narrow valleys, were fast settling along the new line of road."

A most important result is noticed in the same Report. In the district surrounding Clifden, in the county of Galway, no revenue was paid to the state prior to 1822. In 1826 taxation to the amount of £.2,500 was collected, and in 1828 it had augmented to £.6,080. 7. 3.; marking

marking a consumption of spirits, tobacco, tea, sugar, &c. &c., and thus proving indisputably the increased wealth and improved habits of the people.

Mr. D'Arcy, in part of his evidence, makes the following statement respecting the same district.

1968. "Are there not in the County of Galway 200,000 acres of that description of land, and in a state almost waste, at this moment?—To the west of Galway there are more than 200,000 acres of land lying in that state.

1969. "How many have you of your own?—Several thousands.

1970. "How many are there in the neighbourhood immediately adjoining your estate?—The entire of the reclaimable district I alluded to is in the neighbourhood and adjoins my estate.

1971. "With reference to almost every part of that tract of land, do the facilities with respect to sea manure and lime exist?—The country is so indented by the sea, that the remotest part is not more than six miles from it; if, therefore, there were roads, the facilities would exist to every part.

1972. "Have not Government made a considerable length of road in that district?—They have commenced several, none of which are as yet completed.

1973. "Have not those roads remained for several years with one part finished and the other utterly impassable?—They have.

1974. "How long have they been left in that state?—They commenced in the year 1822, and are yet unfinished.

1975. "Is there one passable?—Not throughout.

1976. "Has not the improvement in that part of the country been very great?—Yes, the improvement of that country has been very great within the last 10 or 12 years; for instance, where you could scarcely get a stone of oats in 1822, from the quantity of waste land brought into cultivation, there was exported from the town of Clifden, this year, 800 tons to London and Liverpool.

1977. "To what do you attribute the increase of cultivation?—Partly to the building of the town, and partly to the outlay of money on the roads, and the facilities afforded by them even in their imperfect state.

1978. "Were oats grown in that country before?—Very little corn was grown in that country prior to the building of the town, there being no market for it.

1997. "If there was a main line of road made through the district, would the proprietors be able to make roads that would join it so as to be useful?—I think if the main lines were completed, the inhabitants of the barony would make some private roads by getting a loan of money, and paying the interest and principal by small instalments; the principal roads they are unable to make."

2013. "When you first went to reside in that country, how many houses were there in the village of Clifden?—Only one.

2014. "How many are there now?—Upwards of 300.

2015. "How many years ago is it since you went there?—Twenty years ago, in the year 1815.

2016. "Was there any revenue receivable from Clifden or its neighbourhood at that time?—Not a shilling.

2017. "Can you state the amount of revenue received last year?—Upwards of £.7,000.

2018. "Does illicit distillation still prevail in Connemara?—It does not; there is a party of Revenue Police who are very active to prevent it.

2019. "Are they sufficient to put it down?—They are.

2020. "Previous to the formation of roads, was there much illicit distillation at Connemara?—There was a great deal.

2021. "If the country was more open by roads, would it be necessary to keep up so large a police for the purpose of suppressing illicit distillation?—It would not."

In further proof of the advantages accruing to the public Revenue in Ireland, by the opening of roads through the hitherto uncultivated parts of the country, Your Committee refer to a paper in the Appendix, received from Mr. Mahony.

Mr. Williams states, that—

"In consequence of the expenditure of £.160,000 in public works in Connaught in seven years, the *increase of the annual revenue has been equal* to the whole of

that expenditure." "I find also," he adds, "a corresponding increase in the revenue of the Cork district, where Mr. Griffith expended £.60,000 in seven years, and *the increase of Customs and Excise has been £.50,000 a year*, attributable mainly to the facilities of communication by which whole districts have been rendered available for productive purposes, and a miserable pauper population converted into a class of consumers."

Again, in another statement:—

"The Customs and Excise of Galway have fully doubled since 1822, and exclusive of the improvement in Mayo and Sligo, the surplus must have gone far to pay off the sums Government have expended since that period in the province."

The Committee of 1830 adds, that—

"The effects produced by these public works appear to have been,—extended cultivation, improved habits of industry, a better administration of justice, the re-establishment of peace and tranquillity in disturbed districts, a domestic colonization of a population in excess in certain districts, a diminution of illicit distillation, and a very considerable increase to the Revenue."

In the Reports of the Commissioners of Public Works in Ireland, 1833, 1834 and 1835, it is stated.—

"The very great benefit which the country has derived from the formation of these roads has been repeatedly represented; nothing however short of witnessing the effects produced can give an adequate impression of their value.

"In traversing a country covered with farms and in a high state of cultivation, showing every sign of a good soil and of amply remunerating produce, it becomes difficult to credit the fact, that 10 or 12 years since the whole was a barren waste, the asylum of a miserable and lawless peasantry, who were calculated to be a burden rather than a benefit to the nation; and that this improvement may entirely be attributed to the expenditure of a few thousand pounds in carrying a good road of communication through the district.

"These and other advantages however are insufficient to lead to the execution of such works without the direct and leading support of Government. Some, no doubt, have been constructed by parties feeling a paramount interest in the undertaking, and possessing adequate resources. Small tracts of land capable of improvement may thus be opened by the proprietors, but few individuals know where or how to begin on an extensive range of country, where the operations and results must necessarily be on a great scale, and where the interests are so multiplied and blended, and the relative anticipated advantages so little within the reach of calculation, that even interested parties cannot be induced to venture on the speculation.

"It might reasonably be expected that the Grand Juries would provide a remedy in such cases; but those are naturally the poorest counties in which these unproductive districts abound, and it is with difficulty they can maintain the communications already established. They have the greatest wants and the smallest means, and the remote wastes attract little of their attention."

On a most beneficial class of works, undertaken by Government aid, namely, the small fishery piers on the coast, it is remarked:—

"These piers appear to have been productive of great advantages to the neighbouring districts, not only as affording encouragement to the fisheries, but also accommodation for the landing and shipment of produce, goods, manure, &c., on which considerations they seem to merit the attention of Government."

"The shelter these small piers afford to fishery vessels, and those employed in the distribution of manure and fuel, together with the facility they offer for the transmission of agricultural produce, has created in their immediate vicinity a striking contrast to the wild uncultivated wastes by which they are in many instances surrounded."

Towards the conclusion of the Second, the Report adds:—

"It is not for this Board to give an opinion on the degree of support which the Legislature should bestow on Public Works of primary utility. We are, however, fully persuaded not only of the great political advantage of such an expenditure of the public money, but that it would be to a considerable extent repaid by

by the indirect returns made to the Revenue arising from an increased general prosperity. In England abundant sources of industry are struggling for vent, requiring only the stimulus of such additional facilities of intercourse to enable them to come into full and immediate operation. They are, therefore, in themselves fair sources of speculation for private capital. In Ireland, on the contrary, they are required to foster and encourage sources of industry which are yet latent; and though the consequences and advantages are not so immediately apparent, nor (except in a few instances) do they afford *direct* profits to induce the expenditure of private capital, they are not the less great objects of national interest."

The following are from the Third Report, 1835 :—

" The benefits which the country has derived from the construction of roads carried by the aid of Government contributions through extensive poor uncultivated districts, which were previously without means of communication, continue to manifest themselves in the most satisfactory manner.

" These roads have been the means of fertilizing the deserts, and of depriving the lawless disturbers of the public peace of their place of refuge, affording them at the same time resources for an active, honest industry, of which we must do them the justice to observe, they have not shown any indisposition to avail themselves."..... " We cannot lose the opportunity of repeating the declaration of our firm conviction of the good policy of promoting these eminently useful works by the most liberal and extensive support."

Your Committee, impressed with the important national results detailed in these Reports, and desirous of extending them generally through all the uncultivated tracts of Ireland, present to the consideration of The House the following extracts from the Evidence of Colonel Burgoyne :—

455. " Where would you apply the Government money?—In opening very extensive uncultivated districts; I would provide one main thoroughfare of communication at the expense of Government, and for opening less extensive districts I would give the moiety grants as at present; for those occasions they work very well.

456. " Do you include great tracts of bog in your improvable districts?—Yes, bogs and mountain land.

457. " Would it not be right to compel the landlord to contribute?—I think not in the cases of those very extensive districts I referred to; they have no sufficient interest in it; the great benefit derived from opening those lines of roads would be to the lower classes for many years, and it would be only a distant prospective advantage that the landlord would have in them.

458. " Would not the people themselves be willing to contribute?—The people who would derive the principal benefit have no means of doing so, the poor people.

459. " There is their labour?—You cannot have people's gratuitous labour who have nothing else to live on.

460. " Did you ever hear of one-half of the estimated rate per perch being given to the people who executed the work, in consideration of the local advantage they derived from it?—I have; and in such a case the road might be constructed at a moderate expense, very beneficially to the country.

461. " Is this generally applicable to the state of the country with reference to the people's contribution?—I think in some cases it is made the subject of oppression, by taking advantage of their necessities to get out of them their labour at a low rate."

422. " What are the principal lines of communication which you think it would be most desirable to make with reference to the unfolding the resources of the country?—I cannot specify the particular lines; but the districts generally of Galway, Mayo and Clare, and I believe parts of Donegal; Mayo in particular.

423. " Have you taken into consideration the districts adjoining the counties of Kerry, Limerick and Cork?—All these counties also are very susceptible of improvement in that way."

526. " What are the number of miles of general lines of roads of great and pressing importance which you think desirable to be immediately made, and what would be an approximation to the expense?—I should think at a rough guess, that 200 miles would not be saying too much.

527. "What would be the probable expense?—The probable expense might be 120,000*l.*, about 600*l.* a mile perhaps.

528. "And is this the whole extent of the great lines of communication which you would contemplate making out of the public funds?—It would go beyond it.

529. "How much beyond?—I have not made a correct calculation; it would require some researches with reference to that particular object. I gave too precise an answer when I said 200 miles; there are at least 100 miles in Galway and Mayo alone that might be made with very good effect."

AS TO FUTURE LOANS.

After four years' experience of the working of the Act, Your Committee feel themselves authorized in stating, that although strict in many of its terms, it has been of much and essential service to Ireland. Your Committee, however, beg leave to observe, That the prescribed terms are so severe for individuals, only three or four Loans have been taken; and even in respect of public bodies Loans which might have been safely made and most usefully applied, could not be obtained under the Act, (Colonel Burgoyne.) And it is in evidence before Your Committee, that in consequence of the strictness of the terms on which Loans are required to be made by the present Act (355 to 369, 374, 394, 549 to 560, 573, 587, 826, 909, 988, 1013, 1035, 1051, 1067, 1225.) the benefits which might flow from them under less restrictions, yet with equal safety to the Loan Fund, have not been diffused commensurately with the objects for profitable outlay, to which the fund was originally designed to be applied.

It also appears that the rate of Interest chargeable on the Loans, as stated at the commencement of this Report, is considered high with reference to the cost of the Loans to Government, the nature of the objects for which the Loans are required, and the present general rate of interest on money. (398, 402, 650 to 658, 909, 988, 1001, 1015, 1018, 1059 to 1063, 1066, 1083.

Your Committee find, from the experience of the Loan system introduced into England under the Commissioners for Loans in 1817, that the best possible effects have been produced. By the Evidence of Mr. Brickwood, it appears that since the year 1817, the sum of £.5,300,000 has been advanced by the English Loan Commissioners on the security of Roads and other Public Works in England, and nearly £.200,000 in Ireland, out of the £.250,000, the sum provided by that Act for Ireland.

Previously to the issuing of Exchequer Bills under the present Act, (which is a revolving fund, the issue of Exchequer Bills being always to be available to the amount of £.500,000) a sum of £.500,000 has been from time to time appropriated (and which was advanced out of the Consolidated Fund) for similar Loans in Ireland, under the authority of various Acts of Parliament.*

3 Geo. 4, c. 112.
6 Geo. 4, c. 35.
4 Geo. 4, c. 101.
7 & 8 Geo. 4, c. 12.

Of the £.5,300,000 advanced in England, the sum of £.2,000,000 is now and has been outstanding at an average rate of interest of £.4. 2. 6. per cent., whilst Government, after the first year of issue, only pay an interest of 2½ per cent.; so that the gain to Government is nearly £.40,000 a year, and although the Commissioners in England are not in the receipt of the interest on the whole sum outstanding, after allowing for all expenditure,

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* These sums are exclusive of the monies lent by Government to Grand Juries in Ireland, for the building of Gaols, Court-houses and Infirmaries, and which are either actually paid or in the progress of repayment.

diture, there is an annual sum of £.30,000 received by Government, over and above all losses which have occurred.

In proportion to the amount, an annual Surplus must have arisen, and must continue to arise, upon the sum of £.500,000 issued under the present Act.

It is also in evidence, that the operation of the 18th and 48th Sections already referred to, have very much deterred persons from borrowing money under the Act, or becoming sureties for others, or shareholders in useful undertakings; and it appears to Your Committee, that if the security was taken to the Commissioners without making the party entering into the security a Crown debtor, the same if not greater security would be afforded, as persons would be more likely to become sureties. And in reference to the 48th Section, it appears to Your Committee that the precautions taken by the Board as to security would admit of some relaxation in the rigour of this clause.

It is also in evidence (Colonel Burgoyne, 1125 to 1133.), that the present Loan Fund, or power of issuing Exchequer Bills to the amount of £.500,000 to lend for Irish Public Works, is inadequate for the wants of Ireland; and it is recommended that the Fund be increased.

A loan has been made by the Commissioners in England to the Ulster Canal Company, at the rate of $3\frac{1}{4}$ per cent.

Under the present Act, 25 years are given for the repayment of loans for Public Works; interest at £.4 per cent. is required, and a sinking fund of £.4 per cent.

It appears to Your Committee that in order to lighten the pressure upon the resources of the borrowers at the commencement of their undertakings, the sum required for the repayment of the principal, together with the interest, should be fixed and invariable throughout the entire time for which the money is lent. It is in evidence (*see* Appendix, the Evidence of Mr. Mahony) that a fixed payment of £.6 per cent. continued through a period of 29 years will pay an interest of £.4 per cent. on the sum advanced, and pay off the entire principal. If the interest was reduced, the principal money would of course be sooner repaid by means of this fixed payment.

Your Committee, after mature deliberation on the Evidence obtained under these important heads of their Inquiry, beg leave to recommend to the consideration of The House,—

1. That the Loan Fund be increased by a power of issuing Exchequer Bills for an additional sum, which, together with the £.500,000 already granted, shall be a revolving Fund for annual outlay in Loans.

2. That the Lords of the Treasury shall have power to reduce the rate of Interest payable upon the Loans to any rate not lower than the cost to Government.

3. That in respect of Loans to individuals, except in case of a Loan on personal security only, the repayments be a period of time varying from seven to fifteen years; the first repayment to commence at the furthest, at the expiration of five years from the commencement of the Loan.

4. That in respect of Loans for all Public Works, except Loans to Grand Juries, the repayments be made by half-yearly instalments at the annual rate of £.6 per cent. on the original amount, out of which the interest is to be deducted at the rate agreed upon.

5. That the Shares and Stock of all such Public Companies as shall be approved by the Treasury, may be taken as Securities, as well as Government and Bank Stock, Exchequer Bills and India Bonds.

6. That power be given to the Lords of the Treasury to enlarge the time for repayment on the agreement for the Loan.

7. That the writing obligatory required by the 18th Section of the Act be given at the discretion of the Lords of the Treasury, either to His Majesty as thereby directed, or to the Secretary of the Commissioners, so as to relieve the party from becoming a Crown Debtor.

8. That power be given to the Lords of the Treasury, if they shall think fit, to dispense at the time of the contract for the Loan with the obligation contained in the 48th Section.

Your Committee having received several suggestions, recommending that the loans borrowed from the Board of Works should be first charges on the estates improved, taking priority of all previous incumbrances, inasmuch as by the outlay of the loans the estates would be enhanced in value, they are desirous of calling the attention of The House to the recommendation, without offering one on their own part; but they suggest whether, in the event of its not being considered politic to adopt the recommendation, it would not be just to make the loan a first charge on the particular portion of the estate reclaimed or improved by the outlay of it.

Your Committee also beg leave to call the attention of The House to a provision in the French law, whereby it is directed that previously to the commencement of improvement of waste lands, such waste lands should be valued, and the claim of the mortgagee or incumbrancer on that portion of the estate is limited to the amount of the valuation.

It has also been suggested, and to which suggestion Your Committee beg leave to call the attention of The House, that to relieve borrowers from a portion of the expenses attending on the completion of Securities, the Solicitor of the Board of Works should be empowered to require the Officers of the Irish Courts, and of the Registry Office, to make searches for Incumbrances and Settlements affecting the properties on which Securities shall be offered; and that such Officers shall not require any fee or duty for such searches: the searches in those cases to be retained in the Office of the Board of Works, and used only for official purposes.

It has also been recommended to Your Committee, that the regulations of the Act as to loans might be relaxed in favour of tenants for life, or other persons having particular estates, so as to enable them to charge the outlay on the inheritance, as in cases of grants, (1043, 1054 to 1059.) where they are empowered to charge on the inheritance a moiety of the contribution for roads and bridges. Your Committee recommend that this power be given, but with the sanction of the Court of Chancery to be obtained previously to the making of the contract, by petition in a summary way, and the outlay in no case to exceed three years' annual value of the estate. On the repayment of such loans, the tenant for life, or other person having a particular estate, to have a lien on the inheritance for the amount repaid out of the rents and profits accrued due during the continuance of such life or particular estate. This principle is recognized by the law of Scotland; in England, by the Inclosure Acts; and in Ireland, by the Acts for encouraging the planting of trees.

Your

Your Committee cannot leave this part of their inquiries without strongly expressing their opinion, that the maximum of interest receivable by the Commissioners of Public Works should be £. 4 per cent.

AS TO FUTURE GRANTS.

Your Committee have already stated that the Grant Fund provided by the Act, amounting to £.50,000, to be disposed of in contributions of a moiety of the expense of constructing roads through waste tracts in remote districts, and small fishery piers on distant parts of the coast, has been nearly exhausted, and, as it appears, chiefly by aids to Grand Juries. Only a small part has been obtained by individuals (468.) It has been strongly urged that an additional Grant be applied for similar objects, as well as for useful Public Works of any description (469.); and as Moiety Grants in aid of undertakings by individuals, where no direct tolls or profits would arise; and also for the whole expense of works in remote poor districts, where a moiety of the expense could not be obtained either from individuals or public bodies (1137 to 1149.), and in completing the roads already commenced by Government, but which remain in an unfinished state, and whereby the greater part of the advantages to the public are lost.

Your Committee beg leave also to state, that scarcity and distress most frequently occur in those districts where there is a deficiency of roads and means of communication. Such is the case at the present moment.

Your Committee, in reference to the extension of roads, have already pointed to the extraordinary advantages which have been obtained by an expenditure of public money in the carrying on of works through the remote districts of Ireland.

In Scotland, similar results followed similar operations—(Mr. Loch, 151 and 203.); and in that country, grants were made for roads and bridges, from 1803 to 1821, both inclusive, amounting to £.492,670. 10. 5.

Looking to the amount of outlay in Scotland, and the advantages which have flowed from the former, as well those which have been obtained by a much smaller outlay in Ireland, Your Committee recommend that an additional sum be placed at the disposal of the Irish Board of Works, to be expended on all works of public utility, where no private profit shall arise, and where public bodies or individuals shall contribute one-half of the expense. Your Committee also recommend to the consideration of The House, whether similar powers should not be conferred on tenants for life, trustees and other persons, having only particular estates, in reference to the construction of small piers, quays and harbours, as by the present Act are given in respect of roads and bridges, for enabling them to raise their moiety of contribution; and also whether the stipulation required, as to the future maintenance and repair of such small piers, quays and harbours, may not safely be dispensed with, particularly if the recommendation of Your Committee, contained in a former part of this Report, as to Tolls, be adopted; and also whether the stipulations as to the person or persons who shall apply for such moiety, entering into security to defray all monies beyond the estimated expense should not be confined to one-half of such increased expenditure. The same remark is applicable as to Grand Juries; and Your Committee beg leave also to suggest, that no compensation should be given for the lands taken for roads or bridges through any wild or remote districts.

AS TO THE EXECUTION OF PUBLIC WORKS.

Your Committee recommend, that all Works for which a Grant shall be made, or for which the *whole* cost shall be lent, be executed under the sole direction of the Board; and that when a Grand Jury shall contribute towards the expense of a work, it should appoint a Committee to communicate with the Board before making a final presentment for the contribution; and the Board should be required to furnish the Grand Jury with a full account of the expenditure, on the completion of the Works.

Your Committee also recommend, that the labourers and workmen employed should be paid weekly, as far as circumstances will allow; and that in the case of contracts, the Board of Works should stipulate with the contractors that the wages of the labourers and workmen should be paid weekly.

SMALL PIERS, QUAYS AND HARBOURS.

The power of the Irish Board of Works for aiding in the construction of small piers, quays and harbours, is confined by the present Act to the sea-coast; and grants for such objects are limited to £. 1,000 for one work. (472 to 475.) It has been recommended to the Committee that it would be very advantageous to the country were this power extended to available localities along navigable rivers and lakes. On this object the Committee beg to refer to the Evidence of Mr. Charles Wye Williams. And for the means of constructing these desirable works, necessary for protecting the fisheries and facilitating and extending inland trade, Your Committee recommend that Grand Juries should have the power (not now possessed by them) of presenting for a moiety of the cost of such works, to be levied off the district in which they would be situated, (476 & 850.) but the levy not to exceed the amount of the utmost grant which the Board of Works is authorized to make in aid of them, viz. £. 1,000. With respect to the question of Tolls (689, 691, 712 to 723, 959 to 965,) proposed by some of the Witnesses to be levied for the maintenance of such works, it appears to Your Committee, that for the purposes of maintenance and protection, small tolls may be usefully imposed on such works; and that the Board of Works should be authorized to lease such tolls. The lessee to be bound also to protect the works; and that no tolls should be levied unless approved by the Board of Works, such tolls being previously fixed and published.

SAFETY HARBOURS.

On the coast of Ireland there are numerous eligible sites for Safety Harbours, where an outlay of no very great amount, comparatively with its advantages, would be sufficient to render those natural asylums secure havens for Commercial Shipping; but where there is no prospect of pecuniary profit to induce an outlay by individuals or companies;—and there, Your Committee beg leave to call the attention of The House to the Evidence on this point, showing that a rational outlay for suitable defences at such stations, and for removing dangerous rocks and making navigable certain passes or straits between the main land and contiguous islands, would be of great importance to the Shipping and Insurance interests of Great Britain, while promoting local benefits in Ireland, by affording employment and encouraging the deep-sea fisheries.

INLAND NAVIGATION AND RAIL-ROADS.

Under the present Act, the Board of Works cannot make *Grants* for improving the Navigation of Rivers, but may lend for all Public Works.

It has been suggested, that for the purpose of improving the navigation of Rivers and Lakes, or extending Canals, it would be politic, whenever individuals shall subscribe a *contribution* of *one-fourth* of the estimated charge, or the lands benefited shall be made liable to *one-fourth* of this charge, that Government shall contribute another *fourth*, and that the remaining *half* shall be lent by the Board of Works, to be repayable by half-yearly instalments, at an average rate of 6 per cent. on the loan, in which the accruing interest on the loan is to be included; these repayments to be raised by tolls terminable on the extinction of the debt, or by other approved means. In all such undertakings, the Government would require to be satisfied that the tolls of the navigations would provide for the repayment of the loan, and that the cost would not exceed the estimates; otherwise, of course, the proposed contribution would not be made. Your Committee therefore recommend this suggestion to the consideration of The House; it being obvious that there cannot be an improvident outlay under such limitations, and that Navigations, so formed, must become of great local or even national importance.

Looking, however, to the condition of Ireland, Your Committee foresee that undertakings of the kind must be very limited when individuals (either subscribers or proprietors) must bear *one-fourth* of the cost; and they beg leave to suggest that other measures should be resorted to for improving extensive lines of inland navigation. For this object, they consider that it would be sound policy to make a liberal outlay of public money, as the advantages to be obtained are equal in national importance to any for which the public money is applied, next to the maintenance of the Government. And they recommend that it shall be the duty of the Board of Works, under the sanction of the Treasury in each case, to investigate the expediency and estimate the expense of all such improvements, on the requisition of Grand Juries or Baronial Sessions, and report to Government the probable advantages and cost of the required Works; each Report to be laid before Parliament previously to the time for considering the Estimates of the year.

Whether Your Committee consider the extension of Canals as a means for facilitating internal intercourse, (and to Canals all the previous observations on Roads are strictly applicable,) or as one of the best means of draining and improving bogs and wastes, whether as an abundant source of employment for the poor, not merely in their construction, but to a far greater extent after their completion, or with reference to the vast sums already invested, and in which Government are directly interested to a very considerable extent, they are strongly impressed with its importance as one of the most powerful agents of national improvement.

The introduction of Railways, if practicable, would also be attended by so many obviously important advantages, that the Committee do not hesitate to class them with Canals, as works of primary importance.

One of the principal objects of the Loan system, and of the present Act, was to encourage the application of private capital and enterprise in promoting public works of this class, and Your Committee attach much importance to the operation of private capital and public credit, in promoting works of this class, where the parties who originate the undertaking and by whom it is to be managed, have a direct personal interest in its prosperity, and give the best possible evidence of the sincerity of their views, by contributing a large portion of the cost.

It has been suggested to Your Committee, that in such cases and for such objects, where the parties offer to advance one-third of the actual cost of the undertaking, the Board of Works should be authorized to advance the remaining two-thirds, one-third to be repaid with interest in the usual manner, and the remainder as a grant; in this case the Company to be restricted from dividing a greater amount of profit than 10 per cent. per annum until they paid off the amount of the Grant as well as the Loan.

A modification of this plan has been suggested by Mr. Cubitt, namely, that of the two-thirds proposed to be advanced by the Board of Works, one-half should be secured upon the work, to be repaid by an annual charge of five per cent. for 31 years, which is equivalent to paying three per cent. interest and investing two per cent. as a sinking fund, and that whatever profit shall arise from the work over and above five per cent. per annum during the repayment of the first part of the Loan, shall go to the Company, and that so soon as the first part of the public Loan shall thus be paid off, the *entire surplus*, over and above five per cent. per annum on the private advance, shall then be applied to the repayment of the second part of the public Loan, but without interest; after which the entire profit may be divided by the Company.

This plan appears to deserve attention, inasmuch as it establishes a mutual interest between the lender and the borrower, as the latter can never enjoy the full amount of his profits while the former remains unpaid; and as likely to bring forward a large amount of private capital in furtherance of Public Works of great national utility as well as emolument, and thus confer benefits on Ireland which neither public nor private capital separately employed could ever accomplish.

On the general principle of improving, or opening, inland Navigations, particularly as it applies to the Shannon and its tributary rivers, Your Committee have received much useful information from Colonel Burgoyne, and Mr. C. W. Williams, one of the Directors of the Dublin Steam Packet Company (506; 536 to 542; 834; 941 to 965.), and they consider the suggestions of those gentlemen worthy of the most serious consideration.

WASTE LANDS.

Your Committee reserve for a further Report the recommendations which they propose to found on the evidence they have taken, and are obtaining, in relation to the reclaiming of the Irish Waste Lands; and they will in that Report apply themselves to the consideration of various suggestions before them, as to the best means of improving the condition of Ireland generally, by promoting the employment of the people throughout the country. For the present, they are desirous of calling the immediate attention of The House to the objects included in this Report, as the ordinary wants of the labouring population in the districts principally referred to, are now seriously increased by the scarcity and dearness of Potatoes, on which the peasantry there exclusively subsist; and it is desirable that any proposed measures for enlarging the operations of the Board of Works, in those parts of the country, be speedily adopted.

June 1835.

SECOND REPORT.

THE SELECT COMMITTEE appointed to inquire into the AMOUNT of ADVANCES made by the COMMISSIONERS of PUBLIC WORKS in *Ireland*, the Regulations under which they were made, the Purposes to which they have been applied, and the AMOUNT of REPAYMENTS; to consider also the various Reports made by Committees and Commissioners on the subject of reclaiming WASTE LANDS in *Ireland*, and to what extent the suggestions which they contain have been complied with;—and to report from time to time to The House, together with the MINUTES of the EVIDENCE taken before them:——HAVE concluded the inquiries directed to be made, and having in their FIRST REPORT applied themselves to the consideration of those within the first division of the objects for which they have been constituted, they submit, in this their SECOND REPORT, the results of their inquiry into the reclaiming of WASTE LANDS, and the Recommendations which they have resolved to found on it.

THE Reports of Committees and Commissioners, in which the policy and practicability of reclaiming Irish Waste Lands are investigated or referred to, are the Second Report of a Committee of the House of Commons, appointed in 1819 to inquire into the state of Ireland, (presented 7th June 1819); the Reports of another Committee of The House on Emigration; also the Report of the Committee on the state of Ireland, appointed by The House in 1830, and the Reports of the Commissioners appointed by the Crown on the 15th September 1809, to inquire into the nature and extent of the several Bogs in Ireland.

These Reports point out the advantages derivable to the State, the community, the labouring classes and to England, from reclaiming the Waste Lands of Ireland, and are founded on the most convincing evidence of the facility with which such Wastes may be reclaimed. But it appears from the Evidence obtained by Your Committee, that no effort has been made to realize the advantages pointed out, except in a few cases. In these, however, the success has been most complete, and therefore they present undeniable proofs of the practicability and importance of the operations proposed in the Reports.

Your Committee refer for the details of these beneficial results to the evidence of Mr. Fetherstone, (2362.), of Mr. Griffith, (2595 & 2783.), of Mr. D'Arcy, (1951.), of Mr. French, a Member of Your Committee, (3114.) in which, as well as in the evidence of Mr. Bald, (2512.) there is very important information as to the extent and nature of the various Waste Lands in Ireland, and the cost of rendering each kind arable.

There are four denominations of Waste Lands in Ireland,—the red bog; the black bog; mountain land; and lands, inundated by rivers.

The utmost expense of reclaiming the first, the red bog, is stated by Mr. Fetherstone at £.13 an acre, and he values that which he has reclaimed as being worth a rent of £.1 an acre. To relieve the low black bog has required an outlay of £.6 an acre, and he considers it worth a rent of £.2 for meadow, or £.3 if in a district requiring much meadow land, (2368.) The expense of reclaiming mountain bog consists principally in the charge for cutting drains, the expense of which is inconsiderable. When the drains are formed, the soil is at once brought into cultivation by burning the surface peat. Mr. Fetherstone (2408.) states that the mountain soil can be reclaimed at a very small expense, The cost of reclaiming flooded lands must depend on the extent of the river causing the inundations, or of the value of the mill or fish weirs by which the overflow is occasioned. Mr. Griffith states, (2787.) "I know instances where several hundred acres of valuable meadow land are rendered almost a waste in consequence of a common mill weir, which mill is not worth £.20 a year; eel weirs also present impediments that should be removed." Immense tracts are wasted by the inundations of the Shannon and its tributary rivers; but the expense of reclaiming them depends on the extent of natural obstructions to be removed for the purpose of giving a free flow to the rivers. Colonel Conolly, a Member of Your Committee, states, (1241.) that by an outlay of only £.27 a drainage has been effected on his estate in the county of Donegal, which has enabled the Grand Jury to form a new and level line of mail-coach road through a mountain district; that "the climate has been much improved, and a great quantity of land has been brought into cultivation by deepening, straightening and discharging the small lakes and rivers."

Your Committee in their First Report have recommended the adoption of measures for extending lines of road through uncultivated tracts, and the erection of piers and quays for promoting industry permanently, and providing immediate employment for the peasantry of the remote districts; these works, however, would not lead to the complete accomplishment of their object, without being accompanied or succeeded by very extensive operations for reclaiming Waste Lands. The formation of roads and of quays on navigable rivers and lakes would indeed promote those operations, but are by themselves not calculated to give the country all the advantages derivable from an increase of its productive territory, and the improvement of its husbandry.

The operations for reclaiming wastes would also be more diffused than those on other Public Works, as in almost every county throughout Ireland there are large tracts of reclaimable Wastes; and additional employment may therefore be thus created for all the peasantry, without drawing them far from their present habitations, or unduly augmenting the population of any one district, which has often been the result of ordinary public works, and has been followed by great distress among the labourers.

Increasing the arable land of the country would also have the effect of breaking up the densely populated cottier settlements on the lands now in use, and of abating those fatal contentions which have been incited among the peasantry by competition for land. The increased demand for labourers would induce a large number to abandon the cottier holdings, preferring to work for hire, with a reasonable certainty of continuous employment, rather than be subject to a rent, which leaves them only a scanty subsistence as their compensation for a year's labour.

Unhappily

Unhappily for Ireland, and for the whole kingdom, it has not been heretofore considered sound policy to adopt any public measures towards the development of these extraordinary sources of wealth, or *practically* improving the condition of the Irish peasantry; and hence that fine and fertile country presents so much misery, discontent and crime.

Your Committee cannot concur in the opinion that the social disease of Ireland is produced by a real excess of population. It may be doubted whether the country does contain a sufficient quantity of labour to develop its resources; and while the empire is loaded with taxation to defray the charges of its wars, it appears most politic to use its internal resources for improving the condition of the population, by which the Revenue of the Exchequer must be increased, rather than encourage emigration, by which the Revenue would suffer a diminution, or than leave the labouring classes in their present state, by which poverty, crime and the charges of Government must be inevitably extended.

In 1728, when the number of the people did not exceed a fourth of the total now existing, there appears to have been comparatively as much distress, occasioned by want of employment, as there is now; and Primate Boulter, in his published Correspondence with the British Government, as one of the Lords Justices during the absence of the Lord Lieutenant, makes the following Report on the state of the Peasantry:—

"When I went my visitation last year, barley in some inland places sold for *6s.* a bushel, to make the bread of; and oatmeal, which is used for the bread of the North, sold for twice or thrice the usual price; and we met all the roads full of whole families that had left their homes to beg abroad, since their neighbours had nothing to relieve them with. I fear many hundreds perished by famine. Now the occasion of this evil is, that many persons have hired large tracts of land, on to three or four thousand acres, and have stocked them with cattle, and have no other inhabitants on their land than so many cottiers as are necessary to look after their sheep and black cattle; so that in some of the finest counties, in many places, there is neither house nor corn-field to be seen in ten or fifteen miles' travelling; and daily, in some counties, many gentlemen (as their leases fall into their hands) tie up their tenants from tillage."—*Letter to the Duke of Newcastle, 24th February* 1728.

One of the consequences of the misery caused by the want of employment in Ireland, is an extraordinary increase of the population in the districts where most poverty exists, as compared with the increase in parts of the country where the peasantry are in improved circumstances, and proportionably provident. It appears by the Census Returns of 1821 and 1831, that within the period of ten years the population of Mayo, Galway and Clare increased 24 and 25 per cent., notwithstanding a copious emigration to America; when that of the better conditioned counties of Down and Wexford increased only 7 and 8 per cent., although emigration from these counties has been less.

It appears, moreover, that it is from the counties of Mayo, Galway and other poor Western districts, the labourers migrate annually to England in so great numbers; and it is in evidence that much less remunerative employment at home would detain them in Ireland, like the labourers of the Eastern districts, who although nearer to England, do not migrate. Mr. Griffith states, (2830.) that in the present year he was enabled to stop 500 labourers, who were on their way to England, by giving them employment on Public Works.

In providing the labourers with employment at home, settled habits of industry would be promoted among them, and local trade would be enlarged, creating new sources of employment. At present the greater

part of the peasantry in the western districts acquire their annual stock of subsistence by working in the summer. Their earnings in England, and in the Eastern Irish counties, enable them to procure some clothing, and to pay the rent of their cabins and potatoe land; but if the potatoe crop be a failure, its produce is consumed long before they can acquire new means of subsistence, and then a famine ensues. One of these lamentable contingencies has happened in the present year in some of the western districts. Thus, the present system not only creates poverty, and rapidly augments the population, but also entails on the country all the horrors of famine. It is also a fruitful producer of crime, by giving to a large portion of the population months of idleness in every year, which cannot possibly be well spent by an uneducated, miserable and excitable peasantry.

Your Committee have abundant testimony of the happy change effected in the habits of these poor people when provided with continuous employment. They refer particularly to the evidence of Mr. Griffith, who has had so many opportunities of observing the transition in several parts of the country. Mr. Fetherstone states, (2431.) "My property became safe when I commenced these large works. I never had a sheep taken from me, or suffered any of those trifling thefts which they were in the habit of committing when unemployed."

Having such evidences of the practicability and importance of reclaiming the Irish Waste Lands, Your Committee lament the indifference with which it is stated that the majority of resident landlords in Ireland regard those undeveloped sources of public and private wealth; and they apprehend that the greater part of these lands will remain neglected if left entirely to private enterprise, and the disposition of landowners.

There are, besides, many causes to obstruct improvement other than the indifference of the proprietors; the want of experienced undertakers in whom landowners and leaseholders could confide, both as to their skill and their estimates of the outlay; the necessity of co-operation among the owners and holders of adjoining properties, which may be prevented by disparity of interests and the apprehension of difficulties and litigation, in ultimately adjusting them, and allocating the outlay; and the very general existence of incumbrances, which prevent borrowing for the purposes of improvement.

Your Committee have fully considered these difficulties, which largely exist, and therefore proportionably obstruct the improvement of the country; and they have resolved on submitting the following propositions to The House:

1. The Board of Public Works in Ireland to have power to undertake, on the requisition of the Proprietors of two-thirds of the property to be improved, Drainages of Bogs, Embankments, and the removal of Obstructions in Rivers which cause inundations.

2. Juries to be formed for valuing Mill Sites and Fish Weirs, and also to ascertain the increased value of the lands drained, freed from inundations or otherwise improved, and apportion the outlay to the several properties, according to the benefit derived to each estate or interest.

3. The Outlay apportioned to be a charge upon the estate or interest benefited.

4. The Board of Works to be compensated in money or a sufficient portion of the waste land improved, and powers to be given for that purpose, and also either to sell or mortgage a sufficient part of the whole estate any portion of which shall be benefited.

5. Tenants for life to have power to charge the inheritance with an outlay, to the amount of three years' value, under the directions of the Board of Works, for the drainage, embankment or other permanent improvement, save buildings; the Board in the first instance to make a Report, in which the feasibility of the improvement, when projected, shall be certified; this Report to be laid before a Master in Chancery, with an application from the party to the Court, and the Master to make due investigation, and if he approve of the project as being of such utility to the Estate that the inheritance should bear the charge authorized to be placed on it, then to certify the same to the Court, and the certificate to be enrolled for the purposes of title, and the Tenants for life to have power to sell or mortgage to the amount of such outlay any part of the Estate which, or any portion of which, is to be improved.

6. Tenants for life paying any portion of the outlay, with their own monies, or out of the rents and profits, to be entitled to a charge of that amount on the inheritance, but to be bound to keep down the interest of such charge.

7. Where lands are mortgaged, the Wastes to be valued, and the incumbrances to have operation on such portions, as liens to the amount only of the value ascertained anterior to the improvement; that is, if the Wastes prove worth £.200, the Mortgagee to have a lien on them only to that amount, and the enhanced value to be susceptible of new incumbrance for the purpose of improvement.

8. Mortgaged Lands, where the rent to be received in respect of which will not exceed 2*s.* 6*d.* an acre, to be let by the Proprietor under the approval of two Arbitrators, one named by him, and the other by the Mortgagee; and in case of default of naming such Arbitrator by the Mortgagee, then to let under approval of the Court of Chancery, to be obtained in a summary way by Petition.

9. Enlarged powers of leasing to be given to the Board of Trinity College, Dublin, and the Board of Commissioners of the Schools founded in Ireland by Erasmus Smith.

10. Reclaimed Wastes, which shall be conveyed to the Board of Works, to be sold in small lots of not less than 10 acres, or more than 200 acres, statute measure.

Your Committee recommend, that the Reports of the Irish Bog Commissioners appointed in 1809, and the Maps belonging to them, be deposited in the Dublin Society House, or the office of the Board of Public Works, arranged and set apart for public inspection at the house of the Society, or the office of Public Works in Dublin; and that copies of all the Reports and Maps be deposited for the same purpose in the British Museum, the Dublin Library, and the Public Record and Registration Office in the Custom House of that city; and Your Committee recommend the publication of such of the Maps as have not as yet been published.

Suggestions have been made to Your Committee by Mr. Griffith, for transferring the fiscal functions of Grand Juries to Barony Boards, for

the purpose of promoting measures to secure employment to the peasantry on roads and other public works, when farming employment is diminished; to which suggestions Your Committee beg leave to direct the attention of The House.

Your Committee's attention has been called to the process of Custodiam in Ireland. Your Committee, in the words of the Committee in 1830, "have no hesitation in expressing their decided opinion that this system, objectionable in itself, and animadverted upon as it has been both by the Parliamentary Commissioners and Committees, is an evil and an abuse which requires immediate and effectual reformation;" and Your Committee are therefore pleased to find that a Bill has been introduced into Parliament for the purpose of abolishing this process.

Since the First Report of Your Committee has been circulated, Mr. More O'Ferrall has been examined by Your Committee, and it appears from his evidence that Colonel Burgoyne was mistaken in respect of the number of miles that would be saved by the road alluded to by him; and that instead of seven miles, two miles only would be saved in the distance to Carlow; and Colonel Burgoyne is himself desirous that this mistake should be corrected. But this does not alter the opinion of Your Committee, that the power recommended by them in their First Report to be given to the Board of Works, as to Roads passing through different counties, should be conferred.

August 1835

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MINUTES OF EVIDENCE.

Mercurii, 25° die Martii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

John Rickman, Esq. called in; and Examined.

John Rickman, Esq.

25 March 1835.

1. DID you not act as Secretary to the Highland Roads Commission Board several years ago?—Yes; and also for the Caledonian Canal, from the year 1803 to the year 1828.

2. How was that Board constituted?—It was constituted of persons all Members of Parliament in the first instance; and when any vacancy occurred, it was supplied by The King's Commission, appointing some other Member of Parliament.

3. Did the Members act gratuitously?—Yes, they acted gratuitously.

4. They were named under the Royal Commission?—The Commissioners were appointed in the Act by name; afterwards, vacancies were filled by Royal Commission.

5. When did they commence their labours?—In 1803.

6. The object was to make roads and bridges in districts which were then shut out from communication with the more cultivated parts of the country?—The object of the Highland Road and Bridge Act was to make roads and bridges in the more inaccessible parts of the Highlands of Scotland.

7. What sum of money was granted by Government to them for that purpose originally?—The original Highland Road Act contained a grant of 20,000 *l.*; the Caledonian Canal Act (of the same Session) also 20,000 *l.*

8. For what purpose was the first of these sums to be applied?—Under the Highland Road and Bridge Act it was applied so that a moiety of the expense of road-making should be paid from this grant; and a moiety of the expense by the heritors, the land proprietors.

9. Originally it was applicable to roads made for private individuals?—Originally it was applicable to all roads, in cases where the individuals undertook to pay a moiety of the expense; but this not being found to answer the purposes of comprehensive improvement, the several Highland counties obtained Acts of Parliament for an assessment applicable to such purposes, by which aid roads were carried throughout the Highlands to the North and West Seas.

10. Under those Acts the counties had powers to tax themselves?—Yes.

11. To what extent?—I am not able to specify the extent. Local taxation in Scotland is imposed according to a valuation made about the time of the Revolution, and still called the valued rental, which differs so much from the actual rental, that it is impossible to say what the rate of assessment is. The Inverness-shire Act of 1804 imposed a tax of one shilling sterling on each pound *Scots* (twenty pence) of valued rental; but when the Commissioners found it necessary, in 1819, to obtain an Act, providing for the maintenance of the roads and bridges made under their direction, the counties were assessed according to the proceeds of the Property Tax in the year 1814.

12. Did Government give the counties assistance in making roads?—They were authorized originally to accede to the application of private individuals, who paid a moiety of the estimated expense; and under these Acts, the individuals who advanced such moiety were to be repaid from the county assessment.

13. Then all the roads were, of course, public roads?—Yes.

14. How did you distinguish the roads made under the power given by these Acts, and the roads made upon the application of private individuals?—There was

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no official distinction; the individuals were reimbursed from the county assessment. The Commissioners had, properly speaking, no connexion with the county Acts.

15. Did individuals in all cases reimburse themselves?—Yes, in all cases.

16. Not under the original grant of 20,000*l.*?—From their respective counties, in all cases after the Assessment Acts were in force.

17. The individual applied, and having advanced his money, he was repaid by the county?—Yes; and they were permitted to reimburse themselves retrospectively; which was of small importance; the sum at that time expended being of a very limited amount.

18. There was no general Act; each county applied and obtained a separate Act?—Each of the Four Northern Counties applied to assess itself.

19. After the Acts passed, was there any application made by any individual, offering to pay a moiety, and without having recourse to the county?—After the County Assessment Acts passed, the course of business was this: an individual who wished to make a road, applied at a county meeting before he advanced the money; and the county meeting gave their consent to reimburse him. He then came to the Commissioners; so that the Commissioners had no direct intercourse with the county meeting.

20. He had the consent of the county meeting previous to his application to the Commissioners?—In those counties he always had obtained the consent of the county meeting, which the county meeting was authorized to grant.

21. Supposing he had not the consent, would you have given him the money under the original Act?—The Commissioners would not consider whether he had the consent of the county meeting or not; the Commissioners merely said, "If you will deposit one-half of the amount of the estimated expense, we will undertake to make the road in the usual manner."

22. The Government made annual grants for that purpose for how many years?—Upon reference to Accounts printed in the Reports to Parliament, I find the annual grants were sometimes 10,000*l.*, sometimes 20,000*l.* The annual grants ceased in the year 1818; and afterwards 10,000*l.* was granted in 1821, to enable the Commissioners to satisfy all outstanding claims. In all, the Commissioners received about 250,000*l.*, from Parliamentary grants, and 212,000*l.* from contributors to roads; a disparity which arose from the expense of general management (including surveys and superintendence of contractors), which was wholly defrayed by the public.

23. Government was induced to do this, I take it for granted, seeing the great benefit arising from roads and bridges?—Yes, the making of roads and building of bridges became very popular in the Highland Counties, and Government was persuaded that, by an increase of public revenue following upon the improvement of the lands, they were likely to gain rather than lose by the grants in aid of Highland road making.

24. I believe you are acquainted with Scotland?—I have been in Scotland two or three times.

25. Were you in Scotland previous to making the roads?—No.

26. Were you in Scotland while they were making?—Yes.

27. Did you observe a visible change in the property while the roads were making?—My visits to Scotland were not such as to enable me to answer that question.

28. Did not all parties concur in stating to you that very great benefit was derived from the expenditure?—There were various ways in which I could not help being convinced of that.

29. What were the ways?—Land carriage increased with the facility of carriage, as indicated by the increase of carts made and in use.

30. Was the revenue increased? have you any means of knowing that?—I have no means of particular knowledge; that must stand on general grounds.

31. Was illicit distillation prevented?—I never heard that it had any effect on illicit distillation.

32. Was there an increase of building in that part of the country?—There was some increase of building, and a great improvement in the cottages that were built.

33. Must you not naturally infer from the facility of communication that what produces such a facility must necessarily tend to the prevention of illicit distillation?—I rather believe that the illicit distillation was removed further into the wild country.

34. It had that effect, so far as the country was civilized by the construction of roads?—Yes.

35. Did

35. Did not the making of roads and bridges tend to the improvement in the cultivation of the land?—It tended to the improvement of the cultivation of the land in a remarkable degree. It amounted to an education of all the peasantry in Scotland in the habits of steady labour. In the Highlands there were few good iron tools existing till this time; and the man who had earned a small reserve of money in road-making, carried home with him an old spade and a wheelbarrow, and all the knowledge and good habits acquired by road-making.

36. Were the people anxious to be employed on the roads?—They were very eager to be so employed, chiefly, it seemed, because that was the first time they had ever seen work paid for according to the quantity of work done.

37. You mean by contract?—By task-work, under the contractors.

38. Were all the works carried on by task-work?—There are some kinds of work in road-making which cannot be carried on by task-work; but this is a small proportion.

39. All the rest was?—Yes; my knowledge is of this kind: the Commissioners made a contract with persons who undertook to make the whole or part of a road, and these contractors employed sub-contractors, who headed the gangs of labourers, and virtually made them perform task-work.

40. When the Commissioners advanced the moiety of the estimated expense, and the individual advanced the other moiety, was it the practice for the Commissioners to execute the work by their own engineer, or did the individual execute the work?—It was always under their own direction; the individuals had a right reserved to make observations. When the road was completed, and our officers took it off the hands of the contractor; at that time the individual was called on to be present, and to say whether he was satisfied with the completion of the road.

41. When once you undertook the work it was entirely under your control?—Yes, entirely.

42. Did you find many instances where individuals complained of the manner in which the work was executed?—Never once; the Commissioners kept a surveyor and inspectors, and they caused the road to be made in a better manner than the inhabitants of the country ever expected.

43. By whom were the inspectors appointed?—By Mr. Telford, the engineer; he was the directing person.

44. Through him the inspectors were brought into the service of the Commissioners?—Entirely so.

45. How many were there?—The number of inspectors differed according to the quantity of the work in execution.

46. Were there any specific rules laid down by the Commissioners in appointing inspectors?—While the roads were making, the inspectors were appointed specially for this or that road; after the roads were completed, districts were placed distinctly under the care of inspectors for the repair of all the roads and bridges in each district.

47. After the road was made, did the Commissioners continue to keep that road in repair under contract?—Yes.

48. At whose expense was the repair of the road kept up?—The public paid and still pay 5,000*l.* a year towards it, generally for the maintenance and towards the due repair of Highland roads and bridges.

49. Is that 5,000*l.* given to this day?—Yes, out of the revenues of Scotland, under Act of Parliament.

50. How many miles of road were there made by the Commissioners upon the whole?—By reference to an exact statement, I find the extent to have been 874 miles.

51. Do you know what was the average expense per mile upon the whole?—The average expense at first was not so much as it was afterwards, because the inhabitants of the Highlands becoming more and more sensible of the utility of good roads, desired that the roads might be made in a superior manner; I would say at first the roads cost 300*l.* a mile, and afterwards, towards the close of the work, twice that sum.

52. Do you know what the average charge of the maintenance and repairing of roads is upon the whole number of miles?—I would say it is 3*l.* 10*s.* a mile annually. Besides the roads made by themselves, the Commissioners keep in repair 300 miles of road made in the last century, under the title of Military Roads; and the gradual improvement of these is included in the expense of repair, strictly

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so called; these roads cost 10*l.* or 12*l.* per mile per annum; so the frequented roads of communication; the remote roads from 3*l.* to 5*l.* per mile; when I retired from the service of the Commissioners in 1828, the average actual expense of the road repair was nearly 7*l.* per mile, the public paying the officers employed.

53. What are the officers now employed on the Highland roads and bridges for the purpose of maintaining and repairing the roads and bridges?—A superintendent in Inverness, which is deemed the centre of the Highlands, and six or seven inspectors stationed in several districts.

54. What is the salary of the superintendent?—I think that is 250*l.* a year, with allowance for travelling expenses.

55. What is the salary of the inspectors?—They are paid according to their standing; I think they receive rather less than 100*l.* a year each.

56. Are these officers required to send in reports to the superintendent in Inverness?—Yes; and for this very good reason they send in minute reports, because they are allowed travelling expenses when from home, and consequently they give a correct account of all their movements.

57. Is that independent of their travelling expenses?—No, inclusive of travelling expenses; they are thus paid to induce them to be almost always on the roads, and especially as they are most wanted to be abroad in stormy weather.

58. What description of people are they?—They are usually persons who have acquired a knowledge of the business by having been engaged in making the roads.

59. Are these reports which are sent to the superintendent sent by him up to London?—Yes.

60. Annually?—Yes.

61. And the whole of the expense of general management and superintendence is paid out of the 5,000*l.*?—Wholly, to the amount of nearly 2,000*l.*; the remaining 3,000*l.* goes in aid of the expenses of road repair, in certain proportions allotted to the several counties; beyond that it forms a reserved fund, to provide for any sudden accidents.

62. Do the counties appoint any persons for the purpose of acting on their behalf?—The counties have always been invited by the Commissioners to appoint such persons; but they have not been able to prevail upon them to do it.

63. Are the accounts subject to a local audit, before county Boards or county meetings?—Not subject to a regular audit; but the county meetings may always have the accounts before them, if they please, and the superintendent, Mr. Mitchell attends any county meeting, where discussion of the expense or accounts is likely to arise.

64. What is the mode of repairing the roads?—The manner of repairing the roads is this: supposing a road of 20 miles, a contractor undertakes to repair it throughout the year at so much per mile, and the inspector passing over that line of road, probably oftener than once a month, in case he perceives any fault or neglect in repairing the road, has a right to order the repair at the expense of the contractor.

65. Then it is a common practice for the repair and maintenance of the roads to be undertaken by contractors?—Yes; always except in special cases, which seldom occur.

66. In any case do the inspectors advance money themselves, on their own account, in the repair of the roads?—In no case whatever.

67. With whom are the contracts entered into?—With the Commissioners.

68. Are the contracts taken by the lowest tender?—There is a considerable reluctance in the Commissioners to be governed by the lowest tender. We have found very low rates of contract to be productive of much delay and trouble, and injury to the roads, so that by every possible means we endeavour to avoid it; the Commissioners always struggling against being absolutely governed by lowest tender, and the heritors struggling for it; till after experience, the heritors discover that the lowest tender usually produces the greatest expense to themselves.

69. You have spoken of expressing the opinion of the heritors; in what way is it usual to communicate with the Commissioners upon their part; how do they when there is any difference of opinion, communicate it to the Commissioners?—They communicate with the Commissioners on all occasions, by means of the convener or chairman of the county meetings.

70. Are county meetings ever called for the purpose?—In Scotland there are two county meetings in the year, one called the Michaelmas Head Court, and there is a meeting of the Commissioners of Supply (of the land tax) in April.

71. Who

71. Who are entitled to assist and vote at these county meetings?—There are Land-tax Commissioners' Name Acts occasionally passed in Great Britain, and all those who are named in those Acts are entitled to be present at those meetings.

72. What are the qualifications regulated by law?—There is, strictly speaking, no law for the qualification of the Commissioners of Land-tax; they are named by the County Members, and it is usually supposed that they must possess in land 100 *l.* a year.

73. What is the general average of the number of persons who constitute such county meetings?—It is according to the interest of the subject which is expected to come before them. Sometimes the *sederunt* is more than 30, and sometimes in the same county not above 10.

74. Does it depend on the size of the county, and the population of the county?—It would seem to depend on the number of persons who have the right to constitute the meeting, which is regulated as I pointed out.

75. At these meetings the heritors determine as to the making or repairing of roads, and they communicate with the Commissioners?—Yes.

76. What is then the process respecting the repairs of the roads?—Where any discussion is expected, the superintendent of the Commissioners attends the meeting, and after communicating with him, the meeting decide whether to address a remonstrance or other document to the Commissioners.

77. The Commissioners of Land-tax are named in the Acts of Parliament?—Yes.

78. Are the assessed payers in the habit of nominating some person to represent them at these meetings?—The large proprietors send their agents.

79. Unless they are Commissioners of Land-tax, are they qualified to vote at the meeting?—I cannot answer the question. I can say, in general, that there are larger powers given to agents in Scotland than in England or Ireland.

80. What is the object of their communicating with the Commissioners, as to the repairs of the roads?—They communicate their objections to what may have been done, or they communicate what they wish should hereafter be done, at their pleasure.

81. The Commissioners do not make any grant for the repair of roads, except out of this 5,000*l.*?—The expense of the repairs beyond the 5,000*l.* is paid by the counties themselves. If the county say to the Commissioners, we wish you to incur an extra expense in certain specified repairs; they know that they will have to repay the expense in the next year, after the Commissioners have presented to Parliament an annual account, showing the charges against each county.

82. You have stated in substance the number of miles repaired by the Commissioners, to be upwards of 1,100 miles, at an average expense of 7*l.* per mile; so that the annual 5,000*l.* cannot be sufficient for the purpose?—A part of the 5,000*l.* is intended to exonerate the counties from all expense of management, and the rest of the 5,000*l.* is given partly in aid of counties in certain proportions; moreover, the Commissioners have generally thought it prudent to keep a reserved fund in case of unforeseen accident, such as the breaking down of a bridge.

83. Taking the case you have now mentioned, of the breaking down of a bridge, or considerable damage to a road, do the Commissioners apply for repayment to the counties after that?—They apply it to the counties under certain rules in the Road Repair Act which I cannot now specify.

84. If I understand right, the discretion as to the amount to be distributed is left to the Commissioners, and is not settled by Act of Parliament?—The proportions are settled by Act of Parliament.

85. Suppose an expense is necessary to the amount of 1,000*l.*, are the Commissioners bound to contribute a certain proportion of that, or is it in their discretion to give 300*l.* or 400*l.* or 500*l.*?—It is in the proportion of either one-third or one-half, according to certain rules in the Act of Parliament.

86. With respect to contractors' accounts, do the counties bear the whole of that payment or a share?—A certain proportion, according to the Act of Parliament.

87. By whom is that contribution of the counties' portion paid; is it paid by the heritors or the occupiers?—It is paid (I believe I may say in Scotland) immediately by the landlord.

88. By what process is it levied?—The Scotch law is different from the English law, and I cannot undertake to answer the question. I can only say, I know that it never fails to be levied.

89. Is the heritor empowered in any way to recover it from the occupying tenant?

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tenant?—I do not think he is. The general principle in Scotland is to tax the land-owner for every thing, but I cannot speak accurately on this subject.

90. If one of the inspectors sees a road out of repair, does he call upon the contractor?—If it be an urgent matter he does it himself; and he charges the expense to the contractor if it be a wilful default, within the terms of the contract.

91. If it be an accident, does the county pay?—In usual cases the contractor is forced to repair the effect of accident.

92. Does the superintendence and the management of the Commissioners extend to all descriptions of roads, parochial and so on?—No; only to the old military roads, and to roads made by themselves.

93. How are the parochial roads managed?—The custom in Scotland is different from England and Ireland; every county obtains its own Act; such are called Statute Labour Conversion Acts; under which each county has its own rules.

94. Then it is under those local Acts that they manage all roads of which the Commissioners have not the superintendence?—Exactly so.

95. Do any of those local Acts at present in operation in Scotland admit the principle of election or vestries?—No.

96. Are none of the parochial or other roads in Scotland managed by elective vestries?—No.

97. Can you give us any idea of the principle on which those Acts are founded?—The ancient Common Law of Scotland imposed personal labour on all the inhabitants, to a certain amount, for the repair of the roads, and the nature of these Acts is to make the individuals so liable to labour to pay a small sum of money instead of it.

98. Under these Acts the occupier pays a certain sum?—I apprehend it is paid principally, whether by the occupier or other inhabitant, in equivalent of personal labour; but I fear I should only mislead the Committee in speaking on a subject with which I am little acquainted.

99. In the counties that are more civilized, the commutation of labour for money is more usual?—I believe it takes place in every county of Scotland.

100. By whom is directed the levy and the management of the parochial roads?—By trustees under those local Acts.

101. What is the general principle; is it administered by parochial bodies or county meetings?—I am not competent to answer the question.

102. To what counties do the Highland roads extend?—The roads are principally made in the four northern counties, Inverness, Ross, Sutherland and Caithness; several in Argyleshire, and a small proportion in four other counties. I think our whole list amounts to ten.

103. I understand from you, that in consequence of this continued superintendence of the inspectors, the road is hardly ever out of repair?—Never in a bad state of repair; it is not possible.

104. Are the materials in Scotland, generally speaking, hard, and fit for the making of roads?—I do not think durable materials are very common; but heavy carriages and rapid travelling is very uncommon there. The Highland roads remain in the same state, without very much occasion for repair.

105. Have you limestone near at hand, or is it gravel?—It is commonly said there is no gravel in Scotland; principally, the materials for such repairs in Scotland are found at the bottom of dry torrents, in the dry season.

106. Have they not to carry the materials to some distance?—Yes; but that must be taken into computation by the contractor.

107. Is the substance used hard, or does it become so by time?—It is not a substance that improves by time.

108. Do they generally lodge, for the repairs of the road, materials at the side of the road?—No, that is not the case.

109. Upon many of these Highland roads, is there not, in point of fact, very little traffic?—Very little traffic; there is never any heavy carriage: small carts are drawn by small horses; that is the universal custom there.

110. Do you mean to say that there is little traffic of that description?—There is much traffic of that description, but no heavy carriages.

111. Are the bridges considerably numerous in the north part of Scotland?—Yes; I must distinguish a bridge as an arch; and of bridges so defined, I think we made more than 1,000. It is to be understood that every gullet or siver less than two feet is not a bridge, it is a large flat stone.

112. Did you find that the expense of the bridges constituted a considerable portion

tion of the great expense of making roads in the North of Scotland?—I dare say one-third part of the expense of making roads, but a very small portion of the expense in keeping them in repair. *John Rickman*, Esq. 25 March 1835.

113. With respect to the roads made by the Commissioners, are there walls to inclose them from the adjoining lands or fences of any description?—There are no walls, otherwise than parapet walls, where the place is supposed to be dangerous.

114. Are there neither walls nor fences except at those places?—No.

115. Then you leave it to the owners of the land to do as they think proper?—Many of the districts through which the Highland roads pass do not pass through cultivated lands in the proportion of one mile in fifty.

Lunæ, 30° die Martii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

James Loch, Esquire, a Member of The House, was Examined, as follows:

116. YOU are acquainted with the Highlands of Scotland?—Yes, I have known them intimately for the last 20 years. I may state also that I am a Commissioner for the Highland roads and bridges. *James Loch*, Esq. M. P. 30 March 1835.

117. How long have you been such Commissioner?—I think about five years.

118. Previously to that time were you acquainted with the Highland roads and bridges of Scotland?—Of the extreme North of Scotland, intimately, for 20 years.

119. How were they constructed; was it partly by grant and partly by the counties themselves contributing a fund?—They were constructed in equal moieties at the expense of the Government grant, and an assessment on each of the counties; the whole of the expense of management being borne by the Commissioners.

120. Were there separate Acts obtained for each county?—Each county had an Act of its own.

121. And who had the power, under that Act, of assessing the county?—It was vested in the same body that managed all the funds relative to statute-labour in Scotland, namely, the Commissioners of Supply; their qualification being, that they should hold an estate of the value of 100*l.* Scots, upon a valuation that was made in the reign of Charles the Second, according to which all the public burdens in the counties were formerly paid; and in point of fact 100*l.* Scots, in the reign of Charles the Second, is of the same value as nearly as possible as 100*l.* a year now. So that gentlemen in the county, having estates of 100*l.* a year, are the persons who have the management of these funds.

122. By whom was the cess paid; was it by the landlord or the occupier?—The assessment to meet the moiety granted by Government was paid by the landlord.

123. What was the average expense of making the roads per mile?—I cannot answer the question, inasmuch as the width of the roads differed from each other, and of course the cost of making the road through so rugged a country as the Highlands, varied in almost every case. At the same time, I can state what were the lengths of the Parliamentary roads made in the two northern counties, Sutherland and Caithness, with the actual sum that was paid for each, and by dividing the one by the other, you get at the result. The road that is known in the North as the coast road of Sutherland, being rather better than 46 miles in length, 16 feet wide, cost 15,569*l.* The road which goes through the centre of the county, called the Tongue road, which is within a trifle of 48 miles long, but being only 12 feet wide, cost 19,902*l.*; that road, however, was very expensive to be made, as it went through a large district of the county where, for many miles, there was no house, and the whole of the workmen had to be hutted, and the oatmeal had to be imported for their support from distant counties, and had to be transported upon ponies' backs to the different places where it was required; besides which, some part of it was extremely difficult to be made through some very rugged vallies, and had to be supported on stone-work, with expensive parapets for the safety of the travellers. In the adjoining county, in Caithness, the cost of the Caithness road, leading from the boundary of Sutherland to the town of Wick, being

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being nearly 25 miles in length, and 16 feet wide, cost 14,448*l.*; and its extension across the county to Thurso, being nearly 21 miles, cost 13,365*l.*, the same width. After these roads were made, a very large portion of each of those counties still remained without any communication, and it became a great object with the inhabitants, who were at first not only indifferent, but rather adverse to the making of the roads to obtain the accommodation which they found good roads gave them, extended to the more distant parts of each of those counties.

124. Do those sums you have mentioned include the expense of any bridges constructed on the respective lines?—Upon the coast road in Sutherland, there is one bridge not included in the sum I have mentioned, namely, at Helmsdale, which is a large bridge over a rapid river, where the foundations were bad, consisting of two arches of 70 feet span each, which cost 2,176*l.*

125. With that exception, were all the other bridges made?—Yes; I may state however that in a mountainous country, as must be well known to every gentleman, there are a number of small arches and conduits required to let the water that descends from the mountains through under the road, and that the cost in consequence is much greater than in a level country. I ought also to add, that there was an arm of the sea, called the "Little Ferry," which intervened in this coast-side road, and which had to be passed by means of a mound, extending to nearly 1,000 yards in length. It was believed that if such a mound was executed, it might benefit the estate of the Duke of Sutherland to a considerable extent; therefore in addition to the moiety that the county proposed to give, the late Duke of Sutherland added 1,000*l.* for the contingent benefit that might arise to his property, if it was executed. The result however was, that it cost altogether 12,500*l.*, and the Duke of Sutherland and the county gentlemen bore all the expense except 4,700*l.* I ought also to state, that in order to avoid the ferry, which is called the "Meikle Ferry," being the great ferry which divides Sutherland from the adjoining county of Ross, the county of Sutherland proposed to Government that an iron bridge, consisting of one arch of 150 feet span, and two stone arches of 60 and 70 feet each, should be thrown over the narrow part of this arm of the sea; that they would contribute one moiety, if the Government would contribute the other moiety. That was agreed to, and the bridge was constructed in Shropshire, and within one year the whole was finished, at an expense of 13,971*l.* And, I might just add, that the consequence was, that it is now possible to travel from London to the remotest northern part of the kingdom without crossing a ferry. When the Parliamentary roads were begun, the opposition to them was very great, and the consequence has been, that the coast-side road has often been taken out of the best line; and there are very inconvenient pitches, and in some portions of it they exist to such a degree that from time to time, as the county have the means, they are obliged to remove some of those difficulties. On all the other roads, however, the greatest possible attention has been paid to conduct them in the best possible manner, so as to avoid any inconvenient inclination. The inclinations on the coast side are occasionally very inconveniently steep; in some instances as much as one in 11, one in 12, and one in 13 for very short distances, not exceeding in any case 160 yards in length.

126. Are the bridges included in the amount of the road to Caithness, and in the road across the country to Thurso?—They are, with the exception of one bridge at Wick, which cost 2,000*l.*, and was constructed sometime before the road was begun.

127. At whose expense?—One moiety at the expense of the Commissioners, and the other at the expense of the Society for the Encouragement of the British fisheries.

128. In the other roads what is the average pitch?—There is no other road that you may not trot up it in a gig, the inclination is so trifling, except in a very few instances on the west and north coasts, where, from the nature of the country, no skill could make them less steep; such cases are few in number.

129. Are there many bridges on the central road, and the Caithness coast road?—There are a considerable number of bridges; not to the same extent as in Sutherland, inasmuch as Caithness is a very level country, except that portion of it which adjoins to Sutherland.

130. Besides bridges, are there not a great number of drains and gullies for the purpose of the passing of the water?—A very great number.

131. There are many other roads, are there not, in the Highlands of Scotland, besides those you have particularly referred to?—Yes, the result of the construc-

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tion of the roads under the authority of the Parliamentary Commissioners has been a great desire to extend all the advantages of such a communication to all the most distant parts of the Highlands, more particularly in those two counties to which I have referred; and I may state, that in Sutherland, since the construction of the Parliamentary roads, there has been very nearly 350 miles of road made in addition, with 134 bridges whose arches exceed 10 feet span, and three chain-boats across three wide rivers. Some of these bridges consist of three arches, and several of two arches of considerable magnitude; and in the county of Caithness very nearly 200 miles of road have been completed, or are in the course of being constructed.—*See* the annexed Map of the Counties of Sutherland and Caithness.

132. Were they all made by grant, and then assessed on each county?—No; they were made under what is called in Scotland the Statute Labour Act, except some of the roads in Sutherland, which were made at the sole expense of the late Duke of Sutherland. I may perhaps state for the information of the Committee, that in Scotland, originally, the mode of making highways was not dissimilar to that which exists even in England at the present day. The labour itself was called out; but that being inadequate to make roads in such a country as Scotland, each county from time to time applied to Parliament to obtain an Act to convert into a money payment the labour which previously had been taken in kind. It is conceived that a great advantage has arisen from that system; as each county has obtained an Act quite suited to its own peculiar circumstances for the purpose of making those roads which are not made turnpike. The counties of Sutherland and Caithness, from their great distance, were later in applying for an amendment of the Statute Labour Act than others in the southern parts of Scotland; but in order to avail themselves fully of the roads made under the authority of the Commissioners, they have both obtained very efficient Statute Labour Acts, with considerable powers of raising money by assessment on the respective counties, and by borrowing money on those assessments; and they are raised or demanded by the same class of trustees as assess the county, for the moiety to be paid to meet that advanced by the Commissioners. In consequence of the particular situation of Sutherland, the county was divided into four districts, and local trustees, having a different qualification, may be appointed by the general trustees to administer the funds of each district, and among these trustees are included the principal tacksmen or farmers; this, however, is peculiar to Sutherland alone. The rate at which the statute labour is commuted for a money payment varies in every county in Scotland. In Sutherland it is paid by the landlord and occupier, paying in equal moieties up to the amount of nine-pence in the pound, according to the last assessment under the Property Tax; and a further assessment of three-pence in the pound may be levied, but that is on the landlord only. Under the Statute Labour Act originally (when taken in kind) all the occupiers were obliged to turn out, with so many carts and so many labourers, and each person in the county was obliged to furnish six days' labour on the roads; that was the old law.

133. How is that nine-pence and three-pence applied; for making the roads, or in the repair of the roads?—Both for the making and the repair of the roads. We are armed with great powers, for we are enabled by the Act to mortgage a certain portion of the assessment, and we raise money on that, and the difference must be kept to pay the interest on the amount so raised, and keep the roads in repair.

134. Have you any fund provided to pay off the mortgage?—There is a certain sum provided.

135. Can you tell us the amount of the sinking fund?—I can by referring to the Act.

136. Is that quite sufficient for the purpose?—Yes, it is perfectly sufficient, if attended to.

137. What is the rate of interest upon the loan?—The rate of interest is four per cent.

138. Do you borrow of private parties?—Yes, of private parties, and have no difficulty in getting it. I ought to add also, that private parties always require an additional security; that some of the principal gentlemen in the county should lend their names in addition; which they never hesitate to do.

139. Is that a charge upon the land, or personal security?—It is a personal security. To my knowledge, I do not recollect any money borrowed for such purpose being under four per cent., though the current rate of interest is at present three-and-a-half per cent., and under that in some cases.

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140. Did you ever borrow any money from Government for those purposes?—Never.

141. Is the landlord assessed in Sutherland in a moiety of the 9*d.* in cases where it is merely for repairs, and not for making roads?—In both instances.

142. Is the three-pence in addition, that is collected from the landlord, for the ordinary current repairs of the road?—Both for repairs and the making of the roads.

143. I am assuming that there are no new roads made in the course of the year; is that charge of 4½*d.* and 3*d.* afterwards to be levied on them for the ordinary current repairs of the road?—Certainly; I ought to observe, that it is the landlord only who imposes the tax.

144. How are the repairs of the roads, which were made by the Commissioners, or at least by the grant given by the Commissioners—how are the repairs of those roads done?—The Commissioners have a general surveyor, who annually makes up an estimate of what the repairs of the Parliamentary roads within each county is likely to amount to. The annual grant of 5,000*l.* a year is now made by Government, with an alleviation of three-fourths, payable by the counties, one-fourth paid out of the 5,000*l.*, and three-fourths by the counties; and if the payment by the counties should exceed one penny in the pound on the rental assessed for the Income Tax in 1813 and 1814, the Commissioners pay one-half of such excess.

145. Is the 5,000*l.* found sufficient for the purpose?—The 5,000*l.* has been so well administered that it is not only found sufficient to keep the roads in repair with the sums assessed on the different counties, but an accumulation having taken place, the Commissioners have been enabled to make some very great improvements on the general line of highland road between Dunkeld and Inverness.

146. At their sole expense?—Yes, their sole expense. Of the 5,000*l.*, 1,066*l.* goes to Inverness-shire, 438*l.* to Ross, 222*l.* to Sutherland, and 115*l.* to Caithness, and lesser sums to the counties of Elgin, Nairn, Aberdeen and Argyle; the remainder is applicable to the expense of management and casualties, which latter are sometimes very serious.

147. Can you state the amount of the cost of the 350 miles of road made in Sutherland?—It is not easy to state what the whole amount of the cost of the 350 miles of road was, and for this reason, that in many instances where the poor tenants got in arrear, it was found better that they should pay the rent by work on the roads than call upon them to pay such arrears, care being taken that the roads made by the arrears should be convenient and useful to the persons making them; but I can state that the amount of money expended there under the Statute Labour Act, and by the Duke of Sutherland himself in one shape or another, amounted to near 60,000*l.*

148. Can you state the sum for the 200 miles of road in Caithness?—I am not sufficiently informed to enable me to state that.

149. The fact is, that whereas 94 miles of road were made by Government in Sutherland, 350 miles were made by private persons, and whereas 46 miles of road were made in Caithness, 200 miles of road were made at the expense of private individuals?—Yes, under their respective Statute Labour Acts; and in order to indemnify the proprietors of Caithness, they have taken care to erect turnpikes on all the roads so made.

150. Do you think a considerable portion of the roads made at the expense of private parties or of the counties would have been made if the main trunk, a moiety of the expense of which was subscribed by the public, had not been previously laid out?—I have no doubt, in the progress of improvement which has extended itself to the North of Scotland as well as elsewhere, that an improved system of road-making would have been adopted even without any assistance from the Parliamentary Commissioners; but of this I am perfectly satisfied, knowing the manner in which those additional roads have been made and the motives which influenced their being undertaken, that if the public had not come forward in the manner they did, we never should, certainly not now, nor for many years to come, have enjoyed the advantages of these collateral roads, made either by counties or by individuals; and I can state in confirmation of this opinion, that when I first became acquainted with the Highlands, the advantage of roads was so undervalued, that it was with great difficulty it was found possible to get the concurrence of some of the resident gentlemen to contribute towards their construction; but latterly, whenever a road has been made, the great difficulty has been to know how to comply with the wishes of the people in order to extend branch roads in every direction, to enable them to get the full advantage of that which has been made.

made. In consequence of this a remarkable difference has taken place in the whole habits of the people; in place of a great number of ponies being kept for the purpose of bringing in their fuel and getting in their harvest, carts are universally employed. It is quite clear, that unless roads are extended to all the different townships, the possession of the advantages to be derived from the main lines of communication will not be obtained, unless these minor roads are made, and I therefore have always considered the public money expended in the Highlands of Scotland has been done most judiciously, and has forwarded the improvement of that district by a great number of years indeed.

151. Is the investment, both public and individual, meeting with a reasonable return for the application of the capital?—In reply to that, I should mention a fact as to the state of the coast side of Sutherland in the year 1812, compared with what it is now. In 1812, on the occasion of an election for the county, the candidate had to ride to the place where he was to be elected, there being then no road by which he could go in a carriage. Understanding that the country was ill supplied with horse-provender, he made a great exertion to cross all the ferries, hoping when he got to Dunrobin Castle that he would have his wants supplied, but he found neither oats for his horse nor hay, and he was obliged to get some barley, upon which they were fed, and the next morning a boat had to be sent to the adjoining county of Ross to get some hay and some oats. The present condition of that district is, that there is now an abundant supply of hay, an annual exportation of oats; wheat is grown all over the district, and the system of farming pursued along the whole line of the coast, I will not hesitate to say, is now the best in the United Kingdom, on 31 farms, averaging from 80 to 360 arable acres.

152. Has the value of property in the country also greatly increased?—Yes, and of course the revenue has increased.

153. Can you ascertain, from any returns, whether there has been a considerable increase of revenue?—There is a greater consumption; the people are in a much more comfortable situation, better housed, better fed, better clothed; and I may say, the progress of cultivation in Caithness of late years is, perhaps, even more rapid than the cultivation on the coast side of Sutherland. Within my recollection, the women were employed in many instances to carry manure from the sea side to lay upon the lots. At present, there is not a person in that part of the county who has not a cart; in 1821, there was not a gig belonging to the county, in 1830 there were 41, which exceeds the number of farm carts that were in the county in 1821.

154. Has the public money been expended in the Highlands of Scotland entirely in the main lines of communication across the country?—In the county of Inverness, the extent of roads made by the Commissioners has exceeded those which have been made in any other county; and although, generally speaking, the outlay is confined to the main lines of road, they have been carried to some of the remote districts in the Western coast, which are, of course, of a more local nature.

155. Generally speaking, through the Highlands of Scotland, the outlay has been upon the main and principal lines of communication?—Generally speaking.

156. I allude to branch roads; at whose expense are the branch roads made?—Either under the statute labour, or, if not of sufficient importance to be so made, in some instances made by the landlords only, and in other instances made partly by the landlords and those people to be benefitted by them; all that is done, however, under private arrangement.

157. Did they ever receive any grants from Government for branch roads?—Not for branch roads, as such.

158. Do you recollect the amount laid out for the Caledonian Canal?—I cannot say the exact amount, but I believe it exceeded a million of money; but as to this, I beg to refer to the Twenty-ninth Report of the Caledonian Canal Commissioners. I should also like to state this circumstance, that in 1828, the number of carts on the coast side of Sutherland was 518, and in 1830 they increased to 844.

159. What is the nature of the tenure generally in that district?—The tacksmen, have all nineteen years' leases; the rest of the people are generally tenants at will, but they are never disturbed, except for reasons, and they look on their tenures as certain.

160. The arrangement being that part is paid by the landlord and part by the occupier, facilitates those improvements; they proceed more rapidly than if the entire was paid by the occupier?—I certainly think so; I should rather say, having had my attention extensively drawn to this subject, that I doubt very much, if I had

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to draw the Statute Labour Act for Sutherland over again, I would not recommend that the whole payment should be imposed on the landlord.

161. Leaving the landlord, of course, to impose the tax?—Yes, leaving the landlord to reimburse himself in his arrangement with the tenants.

162. Is there any single instance of any of the public roads in Scotland being made at the sole expense of Government, without assistance from the proprietors of the county?—Not to my knowledge.

163. Is the 5,000*l.* for the repairs limited to the roads made by Government?—The 5,000*l.* is limited to the roads made under the authority of the Parliamentary Commissioners; and what I ought to have stated before is, that after the Rebellion of 1745, there was a considerable extent of road made entirely at the expense of Government, which they used for military purposes; and in consequence of the 5,000*l.* being given for the repair of the Parliamentary roads, the Government cast upon the Commissioners and the counties the maintenance of those roads which had previously been entirely maintained at the expense of Government.

164. Did they contribute equally, the counties and Government, out of the 5,000*l.* to the repair of the military roads?—I think, that previous to the year 1814, the roads in Scotland which were known by the name of military roads, were entirely maintained at the expense of Government; on the 5,000*l.* being given to the Commissioners for the repair of Parliamentary roads, the Government withdrew giving any thing to the maintenance of the military roads, and the military roads were placed upon the same footing as the other Parliamentary roads, and they were to be maintained by the Commissioners in the proportion I formerly mentioned.

165. Can you tell us the expense of management?—I cannot say at the present moment; but it will be found in the Twentieth Report of the Commissioners for 1834.

166. There is a superintendent, whose quarters are at Inverness?—There is; who travels over the roads twice a year.

167. Are there inspectors?—Yes, there are inspectors in each county.

168. Do you know the amount of accumulation of saving expended by the Commissioners for improvements?—To the best of my recollection, the expense of the great improvement which we have just completed on the great line of road between Dunkeld and Inverness amounts to somewhere about 5,000*l.* It was an extremely dangerous pass between two mountains, and almost cut off the communication between the two places during the dark winter nights. In a dark night it was impossible to pass it in some places at such times: we have now made it a level excellent road, and shortened the distance a mile and a half, which will be attended with the greatest possible advantage.

169. How long has the 5,000*l.* been paid?—Since 1814.

170. Do you know the amount of accumulations upon it?—I should say the 5,000*l.* nearly exhausted the whole; but I beg to state this with hesitation, and to refer to the Commissioners' Reports in this and in the last Session of Parliament.

171. Are all the military roads kept up now?—Not all of them, some of them have been abandoned.

172. Superseded by better lines?—Yes, and abandoned by the counties not agreeing to pay their proportion of the three-fourths.

173. Were not the military roads made rather for the advantage of the communications of Government than as a commercial speculation?—Yes.

174. Is it compulsory in Scotland to levy money for the repairs of those roads?—No, it is not for those particular roads.

175. But it is for the other roads?—Yes, for the statute labour roads, and when they have adopted the military roads it becomes compulsory as to them also; but when the arrangement was made with the counties, it was left to the counties either to adopt the arrangement of keeping up those roads or abandoning them, and many of them are abandoned.

176. Do the inspectors look over the statute labour roads?—No.

177. How are they kept up?—That varies in each county. In the county of Sutherland we have a general surveyor for the whole county; in the county of Caithness, if I recollect right, the local trustees alone look after them.

178. Is there any difference in the manner in which they are kept in repair?—No, the repairs of both are equally good; of late years great attention has been paid to repairs of the roads in Scotland, and I may say, generally speaking, they are all kept in sufficient repair.

179. Is

179. Is there any superiority?—I should say there was not much.

180. Do you know the amount expended in public roads in Scotland?—I do not at the present moment.

181. Is there any difficulties experienced from the circumstance of those roads not being under the same control?—Not in the least. There is one point I ought to state; the district roads are not so wide in the more distant parts of the country as where a greater communication is required; they are not more than ten feet wide, with a passing place at the end of every furlong.

182. Were there materials at hand, generally speaking, in making the roads?—The materials all over the Highlands are remarkably convenient.

183. Can you state the nature of the materials?—In the greater part of the Highlands it is a sort of decomposed granite, or gneiss; in some districts there is a considerable quantity of limestone, but still there is no district entirely without the decomposed granite, which after a winter's frost gets extremely hard, making a smooth road, except where there is a great deal of cartage on the road, and there it is necessary to make it stronger by means of broken stones.

184. Is there any compensation given to the persons through whose land the roads are made?—It is the rule of the Commissioners to make no compensation for the land which they go through; all they do is to build up fences. Their opinion is, that in such a country, if they on the part of the public give them the benefit of having a good road, the advantage to the district is sufficient to repay the landlords for the land taken from them. In some instances, near Inverness, where the land is more valuable, by private subscription, or by some arrangement with the county, compensation is, I believe, made, with which the Commissioners, however, have nothing to do; the Commissioners have uniformly resisted any compensation, and in general the advantage of good roads is now so well estimated in the Highlands, that except in a few instances the occupiers cheerfully give up what is required for the construction of roads.

185. Have the Commissioners any compulsory power of obtaining portions of land for making roads?—There is a compulsory power; but for the reasons given, the Commissioners have rarely if ever acted on it.

186. Have they under the Statute Labour Act?—Yes; but I may say it is never enforced, inasmuch as the occupier generally accedes to the views of the trustees.

187. Where there is an unwillingness it gives way?—Yes; that has been generally the case as the advantage of roads is more thoroughly understood.

188. Is the increased value of the remaining land an ample compensation to the land-owners for what they give up for those purposes?—Undoubtedly it is in a country so situated.

189. Has the rent of the land been advanced considerably?—Very much; it is more by the creation of new rents than the raising the rent on the old lands; in some districts it is the creation of rent altogether.

190. Then not only there is a greater quantity of land cultivated, but the land previously in cultivation is better cultivated?—Yes; it is not the same sort of thing at all. Formerly it could hardly be called cultivation; whereas it is now some of the best cultivation in the kingdom.

191. Have not the roads made, rendered the farms more valuable in Scotland?—Very much.

192. Are not the buildings very much increased on the side of those roads; are there not more houses built?—In answer to the last question, I would say, that upon the coast side of Sutherland, when I first knew it, there was hardly any thing but black huts, with a cow and a pig living along with the family; and in 1828 there were 328 cottages built of stone, with chimneys. I ought to add, they had some assistance from the landlord, as the timber was given to them, but the whole of the work besides was done at the expense of the occupier; and in all parts of the Highlands I am acquainted with, and I see a large proportion of it every year, a new road is never made that I do not immediately see new improvements and new houses, and the greatest benefit following.

193. Do you attribute this increase of cottages solely to the roads being made, or to the encouragement given by the Duchess of Sutherland by the people being taken from the new farms, and the encouragement of the building of villages?—My observation extended to all the Highlands; it was not confined to Sutherland or the Sutherland estates; and I should say, if the roads were not made, it would be impossible to get the people to do what they have done.

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194. Do you consider the roads the cause or the effect?—The cause, certainly. My observation, I beg to repeat, is not limited to Sutherland, but if you go to the adjoining county of Caithness the same is apparent there on the side of every road made, and the same in Inverness-shire, and also in a remarkable degree in Ross-shire and Aberdeenshire; indeed Scotland presents innumerable instances of this fact from the one end of it to the other. It must be well known to every gentleman that until roads are made, cultivation on a great scale is impracticable; and as soon as such are constructed, improvements of every sort immediately arise.

195. Has the population much increased within the period you have mentioned?—In some districts it has increased, and in others it has not materially.

196. To what do you ascribe the difference?—Wherever there is a large fishing village, of course the population is increased in a great proportion, and faster than where there is none. I now speak of the north only.

197. Is there not a good deal of the country thrown into sheep-farms?—A large proportion of some parts of it.

198. What has been the mode adopted in getting the roads made?—The general mode has been, after the county surveyor has marked out the road, that advertisements have been circulated for the purpose of enabling persons to make a tender.

199. Is that so as to the repairs also?—The repairs were originally done also by contract, but latterly we have done it more economically, and kept the roads in better repair by stationing so many men on a certain extent of road, and then the county surveyor with the assistance of the local trustees, have seen that the roads are kept in the repair they ought to be.

200. How are those men paid?—By days' wages.

201. Are they constantly in employ?—Yes.

202. What is the general rate of wages for labour?—From about 1*s.* to 1*s.* 3*d.* and 1*s.* 6*d.* a day; some 2*s.*; carpenters 2*s.*, masons 2*s.* 6*d.*

203. State the general advantages that have arisen to Scotland from the making of these roads?—When I first became acquainted with the Highlands, the great proportion of the people, in place of being immediate tenants of the landlord, held of the different tacksmen. Since then almost every person occupying land, and I do not confine my observations to Sutherland alone, though principally to it, have become all immediate tenants to the landlord. They were extremely irregular in their habits, being poachers on the rivers and smugglers, and since then in Sutherland they have given up both, and have become most industrious workmen in every class of agricultural labour. It was necessary, at the period I mention, to get ploughmen from Elgin, and that side of the Moray Firth, and there was not a person who could build a stone wall, the ordinary mode of inclosing land in that country; but it is so much the reverse at the present moment, that almost every ploughman in the country is a native, and they are now the best builders of stone walls in the North, in consequence of which they are employed in all the adjoining counties. A great improvement has taken place also arising from the greater extension of the English language. When the children on the coast side formerly came out of school, though they were taught to read English in the school, they spoke nothing but the Gaelic language; now when they play after school hours on the coast side, they all speak English. Nothing has tended so much to this as the institution of Gaelic schools, which were founded with the object of preserving that language; but the fact is, the moment persons have acquired the facility of reading Gaelic, they find it of no use, and immediately leave it, and teach themselves English.

204. You say there were a kind of middle men when you first knew the country; how do you account for their being given up?—It was given up first of all from the feeling on the part of the landlord that it was his duty to have all persons on his estate holding immediately from himself, and from the change in the agriculture of the country, it was necessary that the tenant occupying the land should be freed from having his under tenants on the land, which were then parcelled in what we call lots.

205. Had the tacksmen leases?—They had all leases.

206. How were they got out?—There were tenants at will under the middle men, and paid their rents under circumstances of the most grievous nature.

207. Was it by an agreement between the tenant and the landlord that the middle men were got rid of?—At the termination of the lease the arrangement was always made to provide some situation for the lotters by the landlord, and then the farm was let to tacksmen, the lotters being otherwise provided for.

208. You

208. You got them removed to other places?—We placed them in other places; sometimes a large farm was cut up, and each person got a portion of arable land to maintain himself, and then they were allowed to possess for 19 years, without paying any rent whatever, portions of land they brought into cultivation, in addition to such portion of arable land.

209. Is there a covenant in the tacksmen's leases prohibiting them from underletting?—Strictly.

210. Do you find any difficulty in enforcing those covenants?—No. I should like to add, that in 1829, the whole of the north-west portion of Sutherland was without a road, and in 1830 the roads were begun to be made according to the Plan which I have delivered in, and we have kept a sort of account of the number of gigs and carts that pass at certain places, to see what effect the roads have had upon the intercourse of the country, and I found at one point, namely, the chain-boat across the Habradale, in the year 1831, which was the year the roads were fully opened, that the number of gigs that passed that point was 65; in the next year, 125; in 1833, 151; and in 1834, 189. The carts were for the same years 660, 594, 787 and 746; in a county where carts did not exist a few years before, at the Naver chain-boat, there were, in 1831, 102 gigs and 182 carts; in 1832, 109 gigs and 324 carts; in 1833, 69 gigs and 328 carts; in 1834, 124 gigs and 321 carts. Tongue Ferry, in 1831, 21 gigs and 41 carts; in 1832, 37 gigs and 53 carts; in 1833, 44 gigs and 85 carts; in 1834, 53 gigs and 84 carts.

211. Do you know how far the mail-coach communication is carried in that country?—The mail-coach communication was carried to Thurso, beyond Inverness, in 1819. Previous to that the post was conveyed by means of runners. I should remark, that it is now carried from Thurso along the north coast by means of individual subscriptions as far as Tongue, and that was carried into effect the very year the road was opened.

212. Is it a four-horse coach or a pair-horse coach?—A pair-horse coach to Thurso from Tain; from Thurso it is conveyed in an open double-bodied carriage and a pair of horses; the regular establishments of the mail extends to Tain, in Ross-shire.

213. Did these improvements lead to the establishment of any manufactories?—The county of Sutherland is not a county favourable to the establishment of manufactories; the great object in the north of Scotland for the improvement of the country is the extension of the fisheries, and it has led to the extension of the fisheries to a very great degree.

214. How far have turnpikes been carried into operation there, and with what effect?—On many of the roads through Inverness, Ross-shire and Caithness, made under the authority of the Parliamentary Commissioners, turnpikes have been erected, and also on the statute labour roads in the latter county.

215. What return have they made?—The Act whereby the roads are repaired by the Commissioners, enables them to erect turnpikes; so that they come in aid of the public grant and the assessment of the county. For their produce, I beg to refer the Committee to the Appendix to the Reports of the Parliamentary Commissioners.

216. Do they do more than merely keep the roads in repair?—In some instances, and not in others; near the great towns they do.

217. Have they any where repaid any of the primary cost?—No.

218. Do you consider them injurious to the agriculture and commerce of the country?—They have been so placed as rather to throw the tax upon the general traveller than on the local interests of the country.

219. Are they upon the general rate of toll, as a shilling for a pair of horses?—The tolls levied on the principal lines in the North are exceedingly high; I rather think they are double what you say.

220. Is there generally, travelling in that part of the country sufficient to raise a revenue?—In Inverness and Ross-shire certainly; but while I say they are so placed as to throw as small a tax as possible on the local interest, they must collect a considerable amount from the ordinary carriage of the country.

221. In your opinion, ought they to be continued?—In some districts, I should say certainly; in other districts I should say, on the contrary, it is a great impediment to the improvement of the country.

222. Do they pay for keeping the roads in repair?—In some instances they do; in other instances they are a general alleviation of the charge.

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223. Can you tell me the expense of the maintenance of the road in the general line of road, the roads you point out, per mile?—I cannot from recollection; if I looked at the Commissioners' Report I could inform you.

224. Could you tell me the proportions which the turnpike on any line of roads bears to the mileage?—Not from recollection. I think in the Report of 1834, you will find in the Appendix such an account.

225. Do you think the local interest would be more served by the removal or the continuance of the turnpikes?—For example, in the county of Sutherland, in conjunction with several gentlemen who have considerable estates there, we have come to the opinion that it would be a tax that would bear so heavy upon the tenantry of the country, that it would be a detriment; but I do not mean to say the time will not come when it would be a fit thing to put it on. Now, on the other side, in Caithness they think it more for their benefit to put on the turnpikes than pay the whole expenses as a tax on the land.

226. Have not most of these turnpikes been very recently erected?—Very recently; the roads have only been recently made.

227. I mean on the roads previously made in the North of Scotland?—On the great road leading from Dunkeld to Inverness, the tolls levied on that road are very considerable.

IN reference to a question put to me, as to whether all grants of public money in Scotland for the execution of public works in that country, were met by sums either assessed on the counties or contributed by individuals, I wish to add to the answer I then made, the following observation; that I find that there are several instances where public money has been from time to time advanced in aid of public works in Scotland, varying in the terms upon which the same has been advanced.

By the 49 Geo. 3. c. lxxxiii., for the Improvement of the Queensferry, which serves as the great means of communication between the North and South of Scotland, the public advanced the sum of 13,586*l.* 3*s.* 1½*d.* to meet the sum of 20,238*l.* 3*s.* 1½*d.* subscribed by individuals; and by the 54 Geo. 3. c. 138, the further sum of 10,000*l.* was advanced to complete the improvements at that place, on the condition of that sum being met by the sum of 10,000*l.* on the part of the trustees of the ferry.

By the 56 Geo. 3. c. lxxxiii., the 58 Geo. 3. c. 44, 59 Geo. 3. c. xc., and the 1 & 2 Geo. 4. c. xxvii. the sum of 50,000*l.* was put at the disposal of the Commissioners of Highland Roads and Bridges, for the improvement of the road between Carlisle and Glasgow, on condition of a similar sum being advanced by private parties.

By the 1 Geo. 4. c. lxxxiv. and 4 Geo. 4. c. 10, the Exchequer Bill Commissioners were authorized to advance to the Highland Road and Bridge Commissioners, Exchequer Bills to the amount of 51,475*l.* to construct certain leading roads in the counties of Lanark and Dumbarton, on condition that the persons interested in such roads should advance one-third of that sum.

This grant was made in order to employ the poor weavers of those districts who were out of work. The country through which these roads were made, as also through which the Carlisle and Glasgow road was made, being very mountainous and uninhabited, did not require the construction of roads of such dimensions and consequence, as were required to connect the great manufacturing districts of the West of Scotland with each other and with those in England.

The sum of 25,000*l.*, which had been advanced to the Forth and Clyde Canal out of the Annexed Estates having been repaid to the Government, the same was, by the 39 Geo. 3. c. lxxi., advanced to the Crinan Canal. By the 45 Geo. 3. c. 85, a further sum of 25,000*l.* was given; by the 51 Geo. 3. c. 117, the sum of 5,000*l.* was advanced; and by the 56 Geo. 3. c. 135, the sum of 19,400*l.* was added to those other grants, and the works were put under the management of the Caledonian Canal Commissioners.

A particular reference to these various statutes had better be had, in order that the particular objects of each grant, and the terms upon which they were agreed to, may be distinctly seen.

Mercurii, 1° *die Aprilis*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne*, called, and Examined.

Colonel. *John F. Burgoyne.* 1 April 1835.

228. ARE you Chairman of the Board of Public Works in Ireland;—I am.

229. When was that Board constituted?—In 1831.

229-(1). Of how many is that Board composed?—Myself, as Chairman, and two Commissioners.

230. And a secretary?—Yes.

231. And how many clerks?—Three office clerks.

232. Have you been in the engineers?—Yes.

233. What are your military services as engineer?—Chiefly in the field.

234. And subsequently?—Subsequently at Chatham for six years, and three years at Portsmouth.

235. Your appointment to the Board of Public Works in Ireland was an appointment taking you from the Ordnance service?—It was.

236. Who are the other gentlemen that form the Board of Works?—Mr. Brooke Taylor Ottley, who came from the Army Account Office; and Mr. John Ratcliffe, who was formerly in the corps of engineers also.

237. Therefore the Board consisted of two gentlemen educated as military engineers, and one whose former practice had given him experience as to the public accounts, having been an examiner of the accounts rendered to Government?—Yes, precisely.

238. Without any reference to the qualifications of the individuals who now form the Board of Works, do you conceive, assuming the number to be properly fixed at three, that two practical engineers and a person conversant with accounts, gives a principle upon which the Board can be managed usefully and effectively?—I think it the best possible principle, and a great advantage to have persons conversant with works, and also to have one well conversant with accounts.

239. You do not mean to say that three is the best possible number?—Yes; fewer than three would add too much responsibility to the persons, and more than three might not work well together.

240. What was the former pursuit of the secretary?—He has been thirty years in the service of different Boards, having similar avocations. He was in the Fishery Board and the Board of Inland Navigation for many years; he commenced as secretary to the latter, and became subsequently a commissioner.

241. How many clerks are there?—Three clerks in the secretary's office.

242. What are the duties of those clerks?—Copying and registering all the proceedings, writing many letters from rough minutes, under direction of the secretary, after which they enter them and keep an account of all the proceedings.

243. I think you said there was an accountant also?—There is an accountant, who has two clerks; he had originally one, but he has been obliged to have another in consequence of the pressure of business in his office.

244. Have you any engineer attached?—We have one engineer and architect combined in the same person.

245. He is constantly employed by you?—Constantly.

246. What were the former pursuits of this engineer or architect?—He was formerly in the Ordnance Service, and clerk of the works in an extensive district at Portsmouth.

247. Were the duties he previously performed such as to give him in your judgment, habits of experience and knowledge fitted for his present situation?—I consider him the most able man for the situation I ever knew in my life.

248. What are his duties?—The whole of the engineers' and architects' business in Dublin, a general but less direct superintendence of various works in the country, and answering references and consultations on other points of sufficient importance.

Colonel *John F. Burgoyne.*

1 April 1835.

249. Was he appointed to the situation by Government, or by the commissioners from their past experience of his ability and knowledge?—He was appointed entirely at my recommendation, backed by the Marquis of Anglesey, who was Lord Lieutenant at the time, and Sir William Gosset, the under Secretary, who were both well acquainted with him previously.

250. Did you ever employ any other engineers?—Frequently.

251. How did you pay those other engineers?—We paid them according to their reputation and station in their profession. If it was for a considerable work, we employed a man of high reputation, and paid him accordingly.

252. Do you employ for that purpose the county surveyor?—Frequently.

253. Not always?—No.

254. By whom are those engineers paid you so employ?—When the employment is to investigate the propriety of making a loan or grant, the engineer's expenses are paid by the party who applies for the loan or grant; in other cases, they are paid out of the contingencies of the office.

255. You consider you have a right to the services of the surveyor, gratuitously, from his connexion as county surveyor, or as to county works?—Yes, on county works.

256. You have a right to demand his services, gratuitously, for county works?—I should put it in a different way; I should say, we cannot give him any allowance, though we are willing to do so; as for instance, in the only case in which we must necessarily employ the county engineers, namely, that of the mail coach roads; where they are in a neglected state, the post-master general, by an Act of last year, applies to us to have them put into repair under the county surveyor, as it is county work, and the expenses paid by the county; we consider that we have no authority to give him any extra allowance, at the same time we think he ought to have it.

257. The county surveyor you do not consider under your control?—Not at all; except in that special case.

258. When you employ him for county business, do you throw more labour upon him than he otherwise would have?—The only case I could call county business was, that of the mail coach roads, which made it imperative to employ him in his own county.

259. Suppose the grand jury present for a road, and that you lend money under the authority of the Act to the grand jury, would it not be considered necessary to employ the county surveyor for that purpose?—Decidedly not; because as we require an investigation, to be satisfied that the plan is correct, we should employ another surveyor, very likely a county surveyor from an adjoining county, in that case we should pay him out of the fund provided by the party for defraying the expenses of the investigation.

260. Then the county surveyor is paid in consequence of the advance being made by you; if the road was made by the Government grant he would not receive it?—We require somebody to investigate the propriety of the plan.

261. You do not entirely rely on the opinion of the county surveyor?—Not generally of the individual who drew up the plan, it would be no check if we did.

262. Do you not think the utmost evil would arise between you and the county, if you employed other than your own servant in the application of the monies that would be required, one man might be laying out money on one part of the road, and another on another part, and do you not think there would be a collision if two individuals were employed by two different parties in the repair of the same communication?—By the provisions of the Government grants and loans, such a case cannot arise.

263. Under the post office arrangement you have spoken of?—I think it would be very injurious; it is much better to employ the county surveyor.

264. Do you employ the county surveyor some times for other purposes?—We do.

265. Do you think it interferes with his public duties?—When we employ the county surveyor, we always ask whether he has time for it or not.

266. From your knowledge of the duties of the county surveyor, do you think that they have time;—At some periods they have; at others, they are overwhelmed with business.

267. Are they sometimes more actively employed, necessarily, in county business than at others?—Very much so; I understand at particular periods they cannot do the business.

268. If they are to be the sole judges whether they have time or not, might not the public interest be sacrificed when they are performing the duties for you?—We know pretty well the periods when they are so occupied, and we have never employed them in lengthened or distant operations.

269. Who fixes the sum paid to the engineers that are called upon to inspect public works, in case of applications to you?—We arrange it with the engineers themselves.

270. Would you have any objection to lay before the Committee a return of all payments that have been made to engineers named by the Board, for the purpose of superintending works of which parties have made application to you for grants or loans?—I should not have the slightest objection, but I am not prepared with it at this moment.

271. Is it the first Board of general public works ever constituted in Ireland?—I believe it is. There was a Board of works at Dublin, but that was purely for the Dublin civil buildings, the castle, park and so on.

272. Were not the duties of that Board annexed to your Board?—Yes.

273. What were the other boards of which the duties were annexed to your board?—There were five in all; namely, the Board of Works in Dublin, the Board of Inland Navigation, the Board for lending money from the Consolidated Fund, the Commissioners of Kingstown Harbour, and the Commissioners of Dunmore Harbour; the fisheries were included in the inland navigation; they were transferred to the Board of Inland Navigation previously.

274–5. The duty of the Board for lending money out of the consolidated fund was under the provisions of the Act of 57th Geo. 3?—I believe it was.

276. With respect to the Board of Works in Dublin, of what were they constituted previously?—I think there were five commissioners.

277. Can you tell us what was the expense of those Boards?—I cannot tell the expense of the individual Boards.

278. Can you tell us the number of commissioners of which the Board of inland navigation consisted?—There were five.

279. What were the number of the Board for issuing money out of the consolidated fund?—There were a large number, I think, but they were unpaid.

280. Can you state to the Committee how many commissioners of the different Boards now consolidated there were altogether?—There were 33, but the greater part of them unpaid; for instance, Kingstown harbour had 15 all unpaid.

281. Out of the whole 33 how many were there unpaid?—There were 26, I believe, not paid.

282. What was the amount of the salaries of the seven paid?—About 3,400*l.*

283. Can you state to the Committee the actual expense of the present Board of works?—About 5,500*l.*

284. Can you state to the Committee the expense of the establishment of the different Boards now consolidated?—Nearly 10,000*l.*

285. Can you state to the Committee the amounts of money expended by the Board of inland navigation?—I cannot say; latterly it was small.

286. How was any principal expenditure by them applied?—There was a fund of 500,000*l.* voted by Parliament for inland navigations at the time of the Union placed under their management.

287. Was that a grant?—It was.

288. Do you know how it was applied to the Public Works?—It was expended on all the leading navigations in the kingdom; the Grand Canal had a large portion, and the Royal Canal.

289. Was it applied in improving the navigation of any of the rivers?—Some of it was applied to the Barrow, some on the Shannon; and to the port of Dublin also a large sum.

290. You said that the fisheries were transferred to this Board previously?—Yes, to the Board of inland navigation.

291. What do you conceive to be the defects in the working of the former Boards?—The former Boards, I believe, were found to be defective; inasmuch as they had not work equal to their establishments, and they were distinct Boards; and it was thought very justly that there would be a great advantage in uniting the labours regarding all Public Works under one department.

292. Are there other advantages besides economy of management?—A great advantage arises from the consolidation of means at command of universal application. Suppose a work is in hand in one county, and an engineer and establish-

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ment employed upon it, some little inquiry may be required regarding another object in the same county, by making use of the means, as hand, time and expense are saved; thus, in various ways, the means provided for one object may be made applicable to another with great advantage.

293. The advantage does not alone arise from economy in the difference of expense on the establishment, but in the increase of efficiency?—Yes; besides that we gain more experience, in proportion to the extent of operations, both as to persons and to modes of working.

294. And the work is sooner done?—Yes, and better.

295. If no further loan should be made through the medium of the Board, would not your position be something like the position of the old Board of inland navigation?—It would not; we have so many duties under us, independent of the working of these loans.

296. Your business certainly would be contracted for want of loans?—It would.

297. Was it found under the administration of those former Boards, that they clashed one with the other in carrying into effect the Public Works?—I am not aware that they clashed one with the other; but they had not the advantage of making use of the means of the one in furtherance of the works carried on by the other.

298. Is the performance of the duties in which the Board is at present engaged so great as to prevent its expenditure of 500,000*l.* more?—No; we could take any amount of duty.

299. Without any increase in the Board?—Yes, I think the Board equal to a great deal more.

300. The present number of the Board is sufficient for a more extended expenditure?—Yes, the Board of Commissioners.

301. Do you think it necessary for the public good, that being charged with more work the Board should be increased, or do you think it sufficient at present?—With regard to the Commissioners it is quite large enough; we should want a larger establishment of clerks and other officers.

302. Do you find the engineering department of this Board more efficient than the engineering department of the former Board for making loans?—They had no engineering department.

303. Then who did their work?—They employed any one they thought proper, any one they approved of.

304. Was there any previous examination of engineers such as exists at present by the Board of Works?—There has been no examinations except for the situation of county surveyor, as required by the late Grand Jury Act.

305. I want to know particularly whether the commissioners receive in any way any emoluments except their salaries from the local parties that apply?—None whatever; when we travel on duty we charge our actual expenses.

306. You alluded to an Act of Parliament passed in the 57 Geo. 3, by which monies were lent from the Consolidated Fund, to what amount, can you state to the Committee?—500,000*l.*

307. By whom were those loans managed?—By a Board of unpaid Commissioners, composed of eminent mercantile men of Dublin.

308. Was any part of the money lent to individuals as well as to public bodies?—Yes.

309. Upon what terms?—That I cannot state; I believe the interest was chiefly at 4 per cent.; some was lent for working collieries.

310. Was any lent for the purposes of agriculture?—I do not recollect any for the purposes of agriculture.

311. For drainage?—I cannot recollect any.

312. Is it not one of your duties to see to the repayment of the money advanced by that Board?—It is.

313. Have they been repaid, and to what extent?—You will find that in the account which we send in to Parliament every year.

314. Have they been paid according to the terms of the loan?—Some of them have not been paid at all, where the securities were insufficient; the others were paid rather irregularly when we first took up the business, but it has improved very much.

315. Does that arise from the insufficiency of the original security, this non-payment?—It does.

316. Is the deficit considerable?—Very large.

317. What

317. What is the amount?—I should like to refer to the account; there is about 180,000*l.* still unpaid.

318. Do you expect to get any large portion of that?—No, a very small part, if any.

319. Is a large portion of the sum due by canals?—Yes, due by canals.

320. By the Grand and Royal Canals?—By the Grand Canal; the Royal Canal does not owe any part of it.

321. Is some of the 180,000*l.* due from individuals?—Some of it is.

322. Do you expect payment of that?—15,000*l.* is due by one individual, who pays nothing; the security was apparently very good, but there are great difficulties connected with it, and the recovery of any part will be costly.

323. Do I understand, with the exception of that single individual failure and the canals, that the whole will be fairly paid?—Besides them, there are two turnpike trusts which have failed in repaying loans to the amount of near 13,000*l.*, the Cork Wide Street Commissioners about 17,000*l.*, and the Youghal Bridge 11,000*l.*; there may be some failures in a few others, the repayments of which are not yet due.

324. Do you think, under the present system of granting money upon loans as laid down in the Act constituting the Board, that a similar result cannot again occur in Ireland, and that the money granted in future will be received back again according to the terms of the loan?—It cannot again occur to any very great extent; in some few partial cases it might.

325. Can such things ever occur under the existing constitution of the Board?—It cannot upon a similar scale.

326. Would the precaution necessary to be taken by the present commissioners prevent the recurrence of such a loss?—I should hope so, except in an accidental case, such as cannot be foreseen, and probably to a small amount.

327. The monies have been paid to the Consolidated Fund?—Yes, they are in the course of repayment now.

328. Without loss to the public?—Yes, except in the case of the failure of the security.

329. I am speaking of the monies that have been lent by you in loans, are they in the course of repayment without loss?—Yes, except in the case of Ardglass.

330. What was the amount of that?—Six thousand pounds.

331. What was the amount of the money placed at the disposal of the Board under the Act of 1831?—Five hundred thousand pounds for loans, and 50,000*l.* for grants.

332. How much of that 500,000*l.* have you lent already?—We have lent, or are under engagements to the amount of 494,000*l.*

333. Do you mean to include in that the 100,000*l.* lent to the Ecclesiastical Commissioners?—Yes; being appropriated for that purpose, it is no longer available for others.

334. In point of fact, during the three years during which the Board has been in operation, only 394,000*l.* has been sanctioned for the employment of the poor in Public Works?—That amount is not all sanctioned; I include in it some loans that have been before the Board, and acquiesced in, and consequently as appropriated.

335. Can you tell us how much is sanctioned, drawing a distinction between that sanctioned, and that in a state of progress?—Three hundred and fifty-one thousand seven hundred and seventy pounds has been sanctioned by the Treasury, including 46,000*l.* for the Ecclesiastical Commissioners.

336. How much has been actually expended?—The amount of Exchequer Bills issued is 195,250*l.*

337. Making the average of the actual expenditure on Public Works, in each year, of about 65,000*l.* a year?—Yes, but there are grants besides.

338. How much of those monies have been actually received by the parties?—One hundred and ninety-five thousand pounds.

339. And the sum of 350,000*l.* sanctioned?—Yes.

340. And the sum of 494,000*l.* contracted for and allotted?—Yes.

341. How much of those monies so lent, or engaged to be lent by you, have been lent to individuals, and not to public bodies?—A very small amount; I should say not more than 12,000*l.* or 14,000*l.*

342. And the rest was for public companies or bodies?—For public bodies or corporations.

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343. What proportion have the grand jury taken?—About 150,000*l.* have been lent on security of Grand Jury Presentments.

344. Can you state to the Committee the nature of the works of those public bodies?—They are harbours, railways, navigations; of the latter, the Limerick navigation is one, the Newry is another, and the Boyne a third; there are three navigations.

345. Is that the Limerick bridge and dock?—No, the Limerick Navigation Company.

346. Then, in point of fact, you have encouraged by the loans only three small navigations in Ireland?—Only those three.

347. The rest were harbours and railways?—Yes.

348. Can you state where those harbours are situated?—Ardglass, Limerick, Galway, Drogheda, Ballyshannon, Claddagh and Belfast.

349. And the railroads?—The railroads are Dublin and Kingstown, and a small railway near Belfast, to bring limestone from Cavehill.

350. Has the Board the power of selection, or do they consider themselves bound to grant loans wherever the proper security is offered?—We have no power of selection; we can only take into consideration the propriety of making any loans for which application is made.

351. Have you it in your power to lend monies in those districts where you think the works would be more useful, if they ask for it?—We have only to consider the propriety of the project laid before us.

352. And you must always have sufficient security, according to the Act?—Yes.

353. Has it ever occurred to you that you were unwillingly obliged to refuse a loan of money under those circumstances, seeing that it might be usefully employed?—I should like very much to agree to many applications made, if I could conceive the Government would give the money.

354. That is, if proper security was offered, it would come within the meaning of the Act?—Yes.

355. You have advanced money for the purpose of encouraging only three navigations; what number of navigations have you been applied to to assist, and of such character that you would recommend the expenditure of public money upon them?—There were none, as regards the security, that we could recommend.

356. With reference to public utility?—I think there are a great many of great public utility.

357. I believe application was made to you, on behalf of the Royal Canal Company, to cut a canal from the Shannon to the town of Roscommon?—There was.

358. I believe you thought yourselves bound to refuse the application?—Yes.

359. Upon the ground that the security was not sufficient, according to the terms of the Act?—Precisely.

360. Not from any disapprobation of the work?—Not at all.

361. Would you have disapproved if the security was sufficient?—No.

362. Did not the work appear to be a useful work, and advantageous to the country?—Decidedly.

363. Do you recollect the security offered; have you any trace of it in your mind?—I do not remember it; I remember the nature of it.

364. Was it an objection to the nature or the amount?—To the amount.

365. Do you recollect the amount asked for?—I do not precisely remember; I believe it was 13,000*l.*

366. Do you conceive that 13,000*l.* would have finished the work?—I believe the sum required, whatever it was, would have been adequate, but the security was insufficient.

367. What did you require of them to show as a security?—Eight per cent. from the very commencement, or nine per cent. after five years for the completion of the work.

368. Would they have been able to give security, if instead of requiring eight per cent. you merely required six per cent?—No, I think we considered the security totally insufficient in that case, it was very deficient according to the terms required by our Act.

369. Did your considering it was insufficient arise from the result of the extension of the navigation of Ballinasloe?—Chiefly from that; the line to Ballinasloe appeared to be so very favourable that we thought Roscommon was not likely to be better.

370. Do you not think the Ballinasloe navigation would be much improved if this was carried on to Loughrea and Galway?—On general principles the extension of the canal is beneficial, but I am not quite sure that it would be so here; it would require a deal of lockage, and the expense of this canal would be very heavy in consequence of the great rise to overcome.

371. What other lateral canals from the River Shannon do you think worthy of the consideration of Parliament?—I cannot at this moment tell; I know the country is extremely favourable to lateral canals, and there are many rivers that might be made navigable.

372. Do you know the Carnadoe River?—I know it; I have heard it is a favourable one.

373. Are you aware of a channel of ten miles there passing through the centre of the richest land in Ireland?—I know there is a very favourable line there by the Carnadoe river.

374. You state there was one case in which you were reluctlantly obliged to refuse a canal?—Yes; when I state reluctantly, it is with reference to the tempting nature of the work, it seemed so favourable, but I am not quite sure that that was a work which peculiarly claims an advance of the public money.

375. Have you had any application for a canal to Nenagh?—We have.

376. Is it your opinion that such canal would be of great advantage to the neighbourhood of Nenagh?—It would be an expensive canal in proportion to its length.

377. Are there not extensive flour mills in the neighbourhood of Nenagh?—There are, but that is one of the difficulties in making the canal, that it would interfere with those mills.

378. Would not the existence of such a canal afford great facilities for the shipment of flour to Dublin?—It would undoubtedly.

379. I believe there were some persons to whom you were obliged to refuse loans under the Act?—Yes, on the same ground.

380. There was the line of canal between Loch Corrib and Galway?—Yes.

381. You had made an advance to the Commissioners of the Harbour of Galway?—Yes.

382. To the amount of 17,000*l.*?—Yes, 17,000*l.*

383. The security offered for it was the harbour dues?—It was.

384. Do you recollect the annual amount of the harbour dues?—Twelve hundred pounds a year.

385. I think according to the Act you could not lend more than 17,000*l.* on that security?—No.

386. Do you think on the erection of the dock and quay that the harbour dues would be increased?—I think they would to a certain degree.

387. A part of the undertaking was making a canal between Loch Corrib and the sea?—It was.

388. It was a short distance?—Very short, not half a mile.

389. Would not the making of that canal open a very extensive agricultural country to the sea?—It would.

390. I believe the extent of Loch Corrib is 30 miles in length?—It is long.

391. Is the navigation of Loch Corrib constantly frequented?—It is not much used and not much known; but I have no doubt it might be made very useful.

392. Do you not think the navigation would be much increased by means of this canal?—I think it would be.

393. Besides furnishing means to farmers from the country sending their corn, would it not also afford the means of bringing their manure from the sea?—I think it would; it would diminish the expense of the carriage.

394. Do you recollect the additional amount asked for making this canal?—I think it was 12,000*l.*

395. And you did not think yourselves justified according to the Act in making that grant?—I was not satisfied that 12,000*l.* would be sufficient.

396. What sum would be sufficient?—We did not go into the investigation, but we found some items of the expenses were omitted.

397. Could you state to the Committee the probable amount of expenses?—No, I cannot; I may state generally with regard to local improvements that the capabilities of Ireland are so very great that unless a new principle is adopted altogether we could not advance money for all improvements under this Act, it would require very large funds.

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398. If the rate of interest was materially lessened would it not enable you to embrace a much larger range of useful Public Works than you consider yourself at present at liberty to undertake?—Not much larger; the refusal has not been usually for a trifling consideration, but, in our minds, to a large amount.

399. Instead of a return of eight per cent., suppose you took it at a return of five per cent.?—That would let several works in, no doubt, that are now rejected.

400. You have stated certain canals for which you have advanced the public money; are there not twenty or thirty different works of the same nature in Ireland capable of improvement?—Yes; the same extent of improvement may be pointed out in fifty other places in Ireland.

401. Without an enormous advance of the public money of the country, would it not be quite hopeless to satisfy all parties in these Public Works?—I think it would; but I ought to add, that I am persuaded it would be very good policy to make large advances for some descriptions of work.

402. Do you not consider, under this Act, that it is necessary at present to look more to the security offered rather as a beneficial investment on the part of the Government than the general utility of the proposed work?—I do not imagine any part of the loans are a beneficial investment to Government, or that they are meant to be.

403. Is not the money repaid with certain interest?—It is.

403*. Is it not above the interest at which it is borrowed?—It is; there is a small advantage intended to defray the expense.

404. Have you sanctioned any work on security on which you could not have obtained the money in the public market?—I apprehend the loans we have made could not have been had elsewhere.

405. Do you consider the outlay under this Act has tended to encourage the industry and improve the condition of the people?—Yes, decidedly.

406. Do you consider the increase of the water carriage in Ireland, as an agricultural country, would materially tend to improve their condition?—Certainly.

407. You are aware you have advanced but 29,000 *l.* out of the 500,000 *l.* as loans for this purpose?—Yes.

408. You are aware no grant whatever has been made for this purpose?—That object is not within the provision for grants.

409. Applications have been made to you by the inhabitants of Ennis on various occasions, for the purpose of obtaining the extension of the navigation from Fergus as far as Ennis, which is the metropolis of the county of Clare?—There have.

410. Is it not your opinion, that if a sufficient security could have been shown, that would have been a work of extreme utility to the town of Ennis in particular, and the surrounding country in general?—It would have been a most useful work; but I think the town of Clare would have benefited more than the town of Ennis. When I was asked the question as to the propriety of making grants for navigations, my impression was, that it referred to the general lines on which there are tolls for the benefit of private individuals and companies, and with regard to whom it would appear unreasonable to expend the public money for their profit.

411. That objection would not apply to those cases in which private parties derive no profit from the result of the expenditure?—Not at all.

412. If that principle has governed your mind, how does it happen that the Board of which you are at the head, have lent 75,000 *l.* to a rail-road company from Kingstown to Dublin?—Because we considered we had very good show of security, and which has been fully realized by the result, and because the parties themselves expended nearly twice as much out of their own resources.

413. The interest being secured by the work, you would have no objection to lend money for the extension of the royal and grand canal?—Quite the contrary; and I think in the grand canal in particular, great improvements might be made by the alteration of the level.

414. With benefit to the community?—Yes.

415. Do you not think the extension of the grand canal beyond the Shannon would be of very great utility?—Extensions of either canal would be useful.

416. I wish to ask you, whether that 75,000 *l.* which you advanced for the Kingstown railway, might not have been more beneficially applied in other parts of the kingdom, provided you had not been so restricted with respect to the security?—I think, as to that loan of 75,000 *l.*, that it is the most advantageous we have made since we have commenced operations in the promotion and encouragement of an expenditure of a large amount of private capital on a public work.

417. You

417. You have been asked, with reference to different works in different parts of Ireland; do you mean to select those as public works on which the public money could be most advantageously laid out in Ireland, or not; particular individual cases have been drawn to your attention, do you mean to select those as cases out of all other cases in Ireland in which the public money could be most advantageously laid out?—Certainly not. I think the roads through uncultivated districts of most importance.

418. What is the next in importance?—The next is for great leading lines of navigation like the Shannon, or any great object that would open the resources generally of the country, and are not within the capability of private individuals, or of the public bodies of the country.

419. What is the next?—The general line of canals.

420. In that answer have you the erection of harbours on the sea coast in your contemplation?—I think the small fishing piers have been of great advantage, those small harbours erected by Mr. Nimmo were exceedingly beneficial to the lower class of people, and in that respect they are deserving of great encouragement.

421. The general lines of road across the country affording a facility of communication by branch roads by private individuals, would in your judgment be a most beneficial application of the public money?—I think so; and I think the building of small harbours is another. I listened with great attention to the detail which Mr. Loch gave of the benefits derived to the Highlands of Scotland from the roads carried on in that country; and I could not help reflecting that every advantage which he stated had accrued to that country would be experienced in a much greater degree in Ireland. In the first place looking at the general lines of communication throughout the country the roads in Scotland only led to remote and distant places of little consequence. In Ireland they usually form an improved means of communication between one great town and another; another circumstance peculiar to Ireland which makes them particularly beneficial is, that the uncultivated districts are capable of great fertility, more so than in almost any other country, and it only requires the application of the ingredients which may be found in the neighbourhood in all directions, to render them very productive, those ingredients are lime, limestone, gravel, sea weed, marl and coral sand, and they are all so dispersed over the country, that any person inclined to think that Providence was interested in such details, would say it was a most beautiful specimen of its workings. The operation of those roads is to introduce those materials, and at the same time to afford an outlet for the produce; there is another peculiar advantage in Ireland in the construction of the roads, that whereas the existence of these uncultivated wastes in Scotland and in other countries may be considered only as a negative loss of so much land, in Ireland they are a source of positive evil, affording points of refuge for all the disturbers of the peace in the country, and of the persons, who either from misery or excitement, are inclined to do mischief. By the formation of these roads a resource is given them for the exercise of useful industry, of which I must say they seem very ready to avail themselves. I think on all these considerations the formation of roads through uncultivated districts in Ireland would be more beneficial than in any other country in the world.

422. What are the principal lines of communication which you think it would be most desirable to make, with reference to the unfolding the resources of the country?—I cannot specify the particular lines; but the districts generally of Galway, Mayo and Clare, and I believe parts of Donegal; Mayo in particular.

423. Have you taken into consideration the districts adjoining the counties of Kerry, Limerick and Cork?—All these counties also are very susceptible of improvement in that way.

424. What sum of money do you conceive it would require to construct those general lines of communication?—I cannot say precisely what sum, but you might expend from 5,000*l.* to 100,000*l.* and the more you expended the more beneficial it would be.

425. Do you mean to state that 100,000*l.* is the maximum you think necessary in constructing those general lines of communication?—I will not say that; I think you might lay out a great deal more with great advantage to the country.

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426. Would it be two millions, five millions or twenty millions?—It is not possible, nor does it appear necessary to define the precise amount, any degree of expenditure large or small would make a complete work of itself, and gain a complete object; the limit therefore must be measured by what you will give.

427. To whatever extent you go there will still be claims behind?—I dare say there will for a long time, some justifiable and some otherwise, but still it would be a beneficial investment of the public money.

428. In what way would the public be benefited?—By a very great increase of revenue from the additional prosperity of the country; a point that seems to be sometimes doubted, but I think it would be clear to any person's mind by putting the converse of the case: imagine a country in a tolerable state of prosperity well-peopled, and to be all of a sudden thrown into a state of rapid decline, the people driven to poverty and the country laid waste; anybody would consider that to be a very great loss to the revenue and to the country, and probably they would not hesitate to make very large grants to stop such mischief, consequently the benefit derived from the improvements admits of the same argument of gain to the revenue and to the country.

429. What would you require from the tenants where these roads would pass, what proportion of the work to be paid for by them, and what by the public?—I do not think they are able to pay any part of it.

430. In Scotland they always contributed one-half?—Yes, they do; but then they meet with an immediate return for the outlay; in Ireland they do not.

431. Notwithstanding that, you are of opinion that a large sum of money would be most beneficially laid out in making roads and forming lines of communication in Ireland?—Decidedly.

432. And with great advantage to the public?—Yes.

433. I wish to ask you whether there were not some lines of communication laid out by Mr. Nimmo and Mr. Killaly?—There were.

434. Have they all been completed?—Mr. Killaly's has, and Mr. Nimmo's are now in a state of being completed.

435. Have you resources for that purpose to complete Mr. Nimmo's?—For the leading lines we have, by the grant of last year.

436. Will that be sufficient for Mr. Nimmo's?—Yes; sufficient for his leading branches.

437. Do you know the south line at Connemara?—Yes, I do.

438. Will your present resources enable you to complete that line of road?—No; certainly not.

439. But you think that a line of road that ought to be made?—Yes.

440. Is it within your knowledge that there is a great deal of illicit distillation in that part of the country?—Not within my knowledge; but I believe in most of the remote districts without roads there is a great deal of illicit distillation.

441. Is that line of Connemara to which your attention has been drawn, one of the lines most important to be first completed?—It would be one that I should select for early consideration.

442. There is another road in the county of Mayo?—Yes; that is one very useful and much wanted. I think that the district of Erris wants roads more than any part of Ireland.

443. There was an Act passed last year to enable the Postmaster-general to repair roads in Ireland,—have such measures been taken by the Postmaster-general?—Yes.

444. Usefully?—Very usefully; we are repairing roads in many parts of the kingdom under that Act; the necessity arose from those portions of mail-coach roads having been neglected by the counties, for causes of which I am not aware.

Veneris, 3° die Aprilis, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne*, called in; and further Examined.

Colonel *John F. Burgoyne.*

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445. YOU alluded in your examination the other day to an Act passed last year, allowing the Postmaster General to repair the mail roads, and many repairs were so done; can you tell us in what parts of the country they were performed?—I cannot state at once from memory, but I should say in more than half the counties.

446. Did you conceive that Act to be necessary?—It was particularly necessary at that moment, in consequence of the confusion occasioned by going from the old to the new grand jury law; there was a cessation in the operations, from not knowing how the present Grand Jury Act would work, in consequence of which some of the roads got into such a state as to be absolutely dangerous and considerably to retard the mails.

447. In your opinion, would it be useful to make that Act permanent?—That Act was created by the necessity, arising from the neglect of the counties in providing for those roads; it would be better if the counties themselves would make the proper provision.

448. You know there was a previous Act in 1808, giving the postmasters the power to perform the work if the counties neglected it?—I am not aware that there was a previous Act to that effect.

449. Not for repairs, but for the construction of roads?—There is no Act making it imperative.

450. But giving the counties the power of doing it in the first instance, and if they did not, the postmaster-general to do it?—The postmaster-general has the power of causing surveys to be made of roads which he may think desirable; the surveys are then submitted to the grand juries, with a recommendation that they should be made, but it is discretionary with the grand jury to adopt them or not.

451. In your opinion is that sufficient?—I think some occasional compulsory power on the grand jury would be very desirable for forwarding public improvements in roads. I know of cases where very useful lines of road would be carried through a country, but for want of the power to pass through some very small portion of an individual county, which fancies its interests opposed to it, the whole measure has been defeated. There are cases where a shilling presentment has been refused in order to defeat the measure, and perhaps a very useful measure for the country. In such instances it would seem very desirable to have some powers to correct the evil. I have known instances of two counties presenting for a bridge, and if the plans of the two engineers employed had been followed, the two halves of the bridge would have been of different constructions and at different parts of the river.

452. If you give a compulsory power of that sort, ought not Government to contribute a part towards the expense?—I do not understand how the Government is concerned in the question.

453. I think you said that Government ought to lay out large sums of money in making roads in Ireland?—I think so decidedly.

454. Why not in that case?—Because this is merely an omission on the part of counties for common purposes and common occasions, and if a contribution from Government was to be the necessary result, the consequence would be, that all roads would be purposely neglected in order to obtain such contribution.

455. Where would you apply the Government money?—In opening very extensive uncultivated districts; I would provide one main thoroughfare of communication at the expense of Government, and for opening less extensive districts I would give the moiety grants as at present; for those occasions they work very well.

456. Do you include great tracts of bog in your improvable districts?—Yes, bogs and mountain land.

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457. Would it not be right to compel the landlord to contribute?—I think not in the cases of those very extensive districts I referred to; they have no sufficient interest in it; the great benefit derived from opening those lines of roads would be to the lower classes for many years, and it would be only a distant prospective advantage that the landlord would have in them.

458. Would not the people themselves be willing to contribute?—The people who would derive the principal benefit have no means of doing so, the poor people.

459. There is their labour?—You cannot have people's gratuitous labour who have nothing else to live on.

460. Did you ever hear of one-half of the estimated rate per perch being given to the people who executed the work, in consideration of the local advantage they derived from it?—I have; and in such a case the road might be constructed at a moderate expense, very beneficially to the country.

461. Is this generally applicable to the state of the country with reference to the people's contribution?—I think in some cases it is made the subject of oppression by taking advantage of their necessities to get out of them their labour at a low rate.

462. Can you state to the Committee, of the grant of 50,000*l.* placed at your disposal, how much has been advanced for the making of roads and bridges?—Thirty thousand pounds.

463. Sanctioned or laid out?—Actually authorised and sanctioned.

464. And works embarked in?—Yes.

465. I see by the return in your Report of 1834, that 27,595*l.* had been sanctioned for grants up to that period, so that during the last year only about 2,000*l.* has been obtained in grants for the Public Works in Ireland?—A very small portion has been granted in the last year.

466. How can you account for that?—The parties have not been willing to come forward with their half; I believe that to be the principal reason.

467. If another 50,000*l.* was placed at your disposal, upon the same terms of contributing one-half by the applicants, do you think that you would not have applications for that amount?—On the same terms I think it would be a long time before we should have sufficient applications, but I should hope that the terms would be allowed to embrace more objects.

468. Were many of the applications that have been made, made by grand juries?—Nearly the whole by grand juries, and a small portion in aid of funds provided by individuals.

469. What alteration would you recommend to be made in the terms of making these grants?—I think it is of so much consequence to encourage the advance of private capital for Public Works in Ireland, that I would be induced to make a grant to an equal amount for any work of real public utility, in conjunction with any party who would subscribe the same, without expecting any direct tolls or profits from the undertaking.

470. Are those not the terms now as to roads and bridges?—Only with regard to roads and bridges; and in certain situations I would give this advantage to useful Public Works of any description and in any situation.

471. With respect to roads and bridges, would you make any alteration in the present terms of the grants?—Not as to grand juries; to voluntary subscriptions I would give the advantage above-mentioned.

472. Besides roads and bridges, you are allowed under this Act to grant a moiety for the erection of small harbours, piers and quays?—We are.

473. Have many applications been made to you for that purpose?—Only one, and that was a small sum for a small pier in Cork harbour.

474. Did you comply with that demand?—We did, and the work was executed.

475. Has it been found beneficial to the country?—We have not had a Report since immediately after the work was completed, but the other moiety having been contributed by an individual who lived on the spot, I have no doubt it was very beneficial.

476. Are you aware the grand juries have not the power of presenting for the erection of harbours, piers and quays?—I know that they have not the power, and I regret that they have not.

477. Would you recommend such a power to be given to grand juries?—Decidedly, upon several accounts.

478. If that power was given to grand juries, would you not limit the district within which the sum is to be levied?—I think the Members of the Committee are better judges than myself on that point. I referred, in my previous answer, to *small* piers; I had not in contemplation large harbours: there are remote districts where there is a very great want of the accommodation of small piers and shelter for small craft; and when the occupiers of land are charged with the grand jury cess for roads and other county works, from which they receive no benefit whatever, contributing regularly to the levy, without one sixpence ever being laid out in the district.

479. And perhaps the situation of the roads is at a distance of several miles?—Precisely; and the grand jury have not the power, even if willing, to contribute towards the work of equal public utility which would be beneficial to them.

480. Do you think there is any objection to trusting the grand jury with the power it at present possesses, in some other cases, of raising the money required for the building of such piers on particular baronies which derive the most benefit from the erection?—I think it would be a very desirable arrangement.

481. Do you think it ought to be submitted to a special session of the barony in the same manner as other local taxes?—Yes.

482. Would you not give the power as well to the barony as to the county?—Yes.

483. The power here is confined to small harbours, piers and quays?—It is.

484. And you are restrained from making any grant except for small harbours, piers and quays?—Yes, we cannot exceed a grant of 1,000*l.* towards such works.

485. Would you not extend the power of making these grants?—I would, if the means were unlimited; but the means being limited, I think the nature of the work must come into consideration.

486. You have referred to the case where private parties would derive no immediate pecuniary profit in the nature of interest or return from the grant you propose to allow; in the case of the Grand Canal, who have profits, you would not give grants to them?—I would, if the disposable means were very great; but as they are not for local improvements and to parties deriving profits, I would give loans; otherwise, without prodigious means, the door would be opened to such extensive claims that the Government would not have the power of complying with them all.

487. Would not that effectually be secured by calling for one-half in the way of contribution every where?—Decidedly.

488. An individual contributing one-half?—I think that the Government might always give one-half; wherever an individual contributes the other half without looking to any direct profit from the undertaking, there would be no great danger by doing so of being overburdened with applications, and the gross amount would of course be limited.

489. Would you extend that to the neighbourhood of large towns and populous districts?—I would. I know of cases where, if in aid of grand jury presentments a private subscription to the amount of 200*l.* or 300*l.* could have been doubled, a very useful road or bridge would have been constructed.

490. Have not the Commissioners, in your opinion, a certain power to select those works with respect to which applications are made which they consider best deserving their consideration, or are they compelled to advance money on loan or grant, provided satisfactory security is given?—The Commissioners have no power of selection.

491. Would it not in your judgment be very desirable that they should have the power of selecting those works which they think most desirable?—I think it would be in cases of grants very desirable to give the Commissioners the power of offering to the consideration of Government those measures which they might think most advantageous and worthy of Government support.

492. Out of the numerous applications, have you the power of selecting those which you think the most deserving of encouragement?—No; we must take them on their individual merits; if a work of utility, we cannot reject it because we know of others more useful.

493. Will you state, as explicitly and as fully as you can, the description of works which you consider particularly deserving of encouragement from the public funds?—I think, the works most deserving of encouragement at the public expense, are the roads through extensive uncultivated districts, and opening the great line of the Shannon. I think those works are worthy of execution at the entire expense of Government, because no other parties have sufficient interest in them, or means

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to undertake them. The benefits would be so diffused over the whole body of the community, that the State alone would receive decided and immediate returns from them. I think local improvements of all descriptions, and undertakings by companies of shareholders, are very worthy of encouragement also; but as the claims for such works would be very numerous, it is not to be expected that Government could do more than promote them by way of loan; at the same time the more advantageous the terms on which those loans could be made the better; but in all cases I would particularly encourage the outlay of private capital, by giving the boon I have before mentioned in my former answers to every advance made by individuals by a free grant in cases of contribution, without looking for direct profit, and by increased advantages in the terms of the loans to such parties as advanced a very large portion of the expense, even though they did contemplate profits.

494. Is it your opinion that the landlords ought to be called upon to contribute any and what part of the expenditure for general works, which would afford increased facilities of communication, and thereby increase the value of their own estates?—I think they ought to make advances in proportion to the benefits that would accrue to their estates, but as those benefits in many cases are remote, and property generally, I believe, is tied up and under embarrassment in Ireland, it is more difficult perhaps in that country than in any other to obtain contributions from the landed proprietors.

495. Would you mention to the Committee any particular case in which great benefit has arisen to the community, from any expenditure by way of grant upon roads in Ireland?—In every case it is quite notorious to persons who are acquainted with the country through which these roads have been carried, that surprising effects of improvement are to be witnessed; instances occur frequently that bring them very forcibly to our notice. There are two mentioned in the Third Report of the Commissioners of Public Works of this year. One is the opening of an extensive district bordering on the counties of Clare and Galway, of 300 or 400 square miles, at an expense to the public not exceeding 10,000*l.*; in consequence of which improvement, lands that were before a desert, and even the source of a great deal of mischief to the country from harbouring bad characters, have become now subjects of speculation for agricultural improvements; the other in a report from one of our road superintendents in the county of Tipperary. It was mentioned incidentally that during the last year 63,000 barrels of lime were introduced by means of these Government roads into the uncultivated wastes, a quantity sufficient for the reclaiming of 1,200 acres of land. There was another instance, in the district of Connemara, of a road completed very recently, and being in a remote district, was made of gravel, but the traffic was at once so very great upon it for the conveyance of fish and manure, as it leads from the sea coast, that we have been forced to add a coating of broken stone, and to alter the terms of the contract we had entered into for the repairs; the expense in consequence of the extent of business so much exceeding what could possibly have been anticipated when the poor man who undertook the contract entered upon it. All those roads are Government roads.

496. How are the Government roads, as you call them, repaired now?—They are repaired under the management of the Board, by funds provided by Government, and subsequently repaid by grand juries, under compulsory presentments.

497. Would you recommend any alteration to be made in that respect?—No, I think it to be a very good arrangement.

498. Are you not aware that in Scotland, Government contributes 5,000*l.* annually to the repairs of the roads?—I am not aware of that; I should prefer the Government contributing to the construction of the roads rather than the repairs; the repairs to remain charged upon the county.

499. On whom is the amount of those repairs levied; is it upon the landlord or the occupier?—It is from the county at large.

500. Would you not recommend it to be levied upon the landlord, either in whole or in part?—I really have never considered the subject of how the levies are made; and I am not a competent judge of it.

501. You recommended the making of grants where there was no direct benefit to be taken, do you refer to tolls?—Yes, to tolls.

502. Does it appear to you that in any case where toll is taken, Government might not usefully make a grant, particularly where they derived, in the case of piers or docks, custom dues?—I think it would open a door to many demands,

more

more than the Government could possibly comply with, otherwise it would be very beneficial.

503. Your primary object would be these roads, and till the roads were completed, you would not spend any money upon the other works?—I think that the roads and the Shannon would create as great an expense as probably the Legislature would be willing to afford.

504. I believe, under the present Act, you have no power of making any grants for the improvement of the navigation of rivers in Ireland?—We have none.

505. Would you recommend such power to be given?—It would be so difficult to define the precise cases as to which grants should be made, that it might be better to acknowledge the principle of contributing to them, and allow them to be brought specifically before Parliament every year.

506. Would you extend to grand juries the same power which you have proposed to give them in the case of fisheries, of raising money for the purpose of improving the navigation of rivers, or of making canals and railways?—Not by general assessment, but I would allow them to sanction the levies voluntarily and fairly laid by the baronies or districts immediately interested.

507. Would you give them the same facility in making water communications that you would as to land?—Yes, to that extent; it is a system, I believe, pursued beneficially in the United States.

508. You would not confine that to the Shannon, but you would extend it to all water communication?—Yes.

509. Would you also extend it to canals?—I would extend it to all public works and improvements.

510. Are you aware of how many miles of post roads you have repaired in the last year?—I cannot state from memory.

511. I see in your Report for this year, that for the maintenance and repair of 92 miles of road in the county of Clare the sum of 2,268*l.* has been expended, making an average of about 24*l.* per mile; are you not aware that the ordinary roads in Clare are maintained at rather less than one-half that sum?—I am quite sure they ought to be maintained at less than half the sum, because they are generally in a shocking state of repair, while our roads are in an excellent state; there is great traffic upon our roads, and the more so in consequence of the badness of the others, people go frequently considerably out of their way to get on our roads; there is enormous traffic upon them, and the materials are very expensive or very bad; the superintendent we have there is very trustworthy and able, and I fully believe conducts the business remarkably well. It is sound policy where you have a road, to keep it in good order, at whatever expense it may be to the country.

512. Are you, from your local knowledge, enabled to state that some main lines of communication in the county of Clare are not maintained in excellent repair at the rate of 8*d.* per perch, about one-half of the charge for your 92 miles of road?—I believe some portions of our roads may cost less than 4*d.* in the county of Clare, and others may cost half a crown; those roads which cost so much have an immense traffic upon them and are in a bad country for material. I do not believe there is any want of economy in the management of those roads.

513. Are you aware that the main line between Ennis and Limerick is maintained at a considerable less cost?—I am not aware of it. With regard to Government roads, we have a considerable extent of them dispersed all over Ireland, and wherever there is a small portion in any one district, that will be somewhat expensive on account of the establishment.

514. In order to account for the cost of your roads being greater than the main line of road through the county of Clare, which is only 8*d.* a perch, you stated that you considered your roads to be in very good order and the other roads in very bad order; do you know of any main line of road in Clare out of order?—I referred to the roads in the immediate neighbourhood of ours, I do not know from my own personal observation their state, but I have it from the report of the local Inspectors and those who are sent to control the local Inspectors, and I have such confidence in their reports that I would vouch for their being correct.

515. Have those persons who are sent by you to inspect the roads any thing to do with the expenditure of money on the roads?—The resident Superintendents have the management of the expenditure, but not the engineer who makes the occasional inspections.

516. Are you not aware, that within the last three years considerable portions of the roads in the county of Clare under the care of the Board of Works have been

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in a state which has given rise to complaints?—Some few years ago there were complaints.

517. Have you any knowledge that in the county of Roscommon the roads were even in such a state as to occasion complaints from the grand jury?—I know they were reported to be in bad order, but I doubt its being the case.

518. You are aware the grand jury did it?—Yes; I know they have, they have opposed the management in the hands of the Board from the very commencement.

519. Are you not aware that the grand jury of the county of Clare refused for two or three successive years to sanction a presentment for the roads, upon the ground that they were so much more expensive than other roads in the same county?—I believe they objected to the expense, but I think what they grounded their judgment upon was erroneous, which was the expense of maintenance of roads in other parts, without considering the peculiar circumstances under which those roads were placed. Some years ago there was a degree of mismanagement on the Clare roads, and the superintendent was dismissed from his situation; during the period he was in office there probably were some grounds of complaint, but not recently; in a multiplicity of roads and works that are to be managed all over the kingdom, it is to be expected that some errors will be committed occasionally.

520. Do you think a central system of management is likely to be more expensive and more liable to inefficiency than a well constituted local control and expenditure?—I think a well constituted local system of management under a central board of control would be the best system.

521. Are you aware that the grand jury for the county of Roscommon absolutely refused to present a sum of money expended under the direction of the Board, upon the ground of the roads not being in order, and of the money not having been expended?—I believe they did upon that ground; but I am satisfied that the road was in good order at the time, and that the money had absolutely been expended.

522. Why did you consider the road to be in good order?—Because it was reported to be so by our principal engineer, who was sent expressly to investigate it, and he said the road generally was in good order, but there were many little defects in detail which he recommended to be improved, as he does on all other occasions. I should state that this road is under peculiar circumstances. It is in extent 11 miles under our charge, and in different portions intersected by portions of county roads; that is, patches of two or three miles, and then a bit of county road, then a patch for two or three miles more, and then another bit of county road. I know that portions of the county road are in bad order, much worse than any part which belongs to our Board, and that gives the impression that our road is in such a bad state.

523. Are you of opinion generally that the roads under the management of your Board are both efficiently and economically managed?—I think where we have a sufficient quantity of road in one district to allow of the employment of an efficient superintendent, they are very well managed; but where there is but a small piece of road to be managed in a remote part of the country, the expense not admitting of an able superintendent there may be some mismanagement.

524. You have been asked to compare the efficiency and economy of a Central Board and a well-constituted Local Board; is it your opinion that you could establish throughout the country at a moderate expense, or without any expense to the public, those well-constituted Local Boards?—I am not aware of any system under which such an arrangement could be effected.

525. Do you think the superintendence of the local authorities, the grand juries or any other persons in Ireland would constitute a well-established Local Board for that purpose and efficiently?—I expect that great improvement will be made in the management of the roads by the appointment of county surveyors; by supporting them in their authority and arrangements the counties will be able to manage their roads well.

526. What are the number of miles of general lines of roads of great and pressing importance which you think desirable to be immediately made, and what would be an approximation to the expense?—I should think at a rough guess, that 200 miles would not be saying too much.

527. What would be the probable expense?—The probable expense might be 120,000*l.*, about 600*l.* a mile perhaps.

528. And is this the whole extent of the great lines of communication which you would contemplate making out of the public funds?—It would go beyond it.

529. How

529. How much beyond?—I have not made a correct calculation; it would require some researches with reference to that particular object. I gave too precise an answer when I said 200 miles; there is at least 100 miles in Galway and Mayo alone that might be made with very good effect.

530. Can you furnish the Committee with a list of the works for which applications for loans and grants have been made, and the amount of money required?—I can procure it, as far as formal applications have been made, but I doubt whether that would give the precise information wished for; we have many inquiries, and much correspondence regarding applications that are not entered in the application book, when the result ends in the parties abandoning their intention on finding they cannot get the aid they require.

531. Could you furnish a list of the works you think more particularly deserving of immediate attention, and the probable cost of those works?—I could make out a rough calculation after I return to Ireland.

532. Could you do it without difficulty?—Yes, if allowed a little time, a month or two.

533. You are aware of an Act being passed last Session respecting county bridges, that is bridges situated between two counties?—Yes, I am.

534. A power is thereby given of charging not only the county immediately adjoining, but the counties benefited by the erection of such bridges?—Precisely.

535. With respect to the power you would give grand juries as to the navigation of rivers, would you extend that principle also to those cases?—In the Act for county bridges there are some compulsory provisions which I think it would be hardly reasonable to put on contributions for navigation; it should be entirely voluntary on the part of the counties.

536. Have you considered the case of the navigation of part of the river being improved by a county or counties, and the other counties through which the river passes refusing to improve the navigation of the remainder of the river?—I think if the navigation be a heavy expense, it would not be reasonable to make it compulsory on the county, at the same time I would give power to prevent difficulties being placed in the way of a great improvement by parties who would have to contribute but a small proportion of the cost.

537. What powers would you give for that purpose?—It requires some consideration.

538. Would it not, for instance, be very hard, supposing one county had laid out a large sum in the last year in making a great road, and the adjoining county laid out nothing, and in the following year that county had chosen to lay out a small sum on the navigation; that the first county when it was burdened with a heavy debt already incurred should be called upon and be compelled to contribute to the navigation of the river?—It would seem to be a great hardship; the difficulty I feel in cases of navigation is, that it is a hard thing to make a county generally contribute to a navigation, from which, perhaps, but a small part of the county would receive a benefit; the case of roads is different, they are of absolute necessity, and of more general application.

539. Upon what principle would you apportion the assessment which might be necessary to defray the expense of improving the whole navigation of the Shannon upon the counties particularly benefited, and through which it passes?—I would not on any principle: I do not think it a good principle to put it upon the counties; I am against it.

540. How would you defray the expenses?—By the public.

541. Would you levy any tolls upon the shipping and merchandize taking advantage of the river?—I would most undoubtedly, both for the sake of raising the revenue, which they could reasonably pay, and also to retain a power of regulation and control.

542. If the navigation of the Upper Shannon, which is now under your care, were materially improved, do you not think that the tolls upon it would be much more considerable than they are at present?—They would, no doubt; but they would not by any means pay for the expense of the undertaking.

543. Can you suggest any scheme by which when one party proposes to make a part of a general line of communication as far as it passes through that county, that an adjoining county could be compelled to continue such line through its territory?—My principle is, that it should be done with regard to roads, but not with regard to navigation. With regard to roads, the only way it could be done is by a com-

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misssion appointed by Government of Government officers and gentlemen of a different part of the country would perhaps be most satisfactory.

544. Can you mention any instance within your own knowledge where such a provision as has been now suggested to you would be most desirable?—I can mention an instance where a road has been defeated for want of such a power. The Blesington turnpike trust has power to go to Carlow by a line which would be very advantageous to the country; but to carry it into execution it is necessary to pass through a small portion of the county of Kildare, whose grand jury have constantly refused to allow it, though only one shilling presentment was asked for; the consequence is, that a very improved communication from Dublin to Waterford, saving seven miles, is in a great measure defeated. There is another case where the county of Mayo has refused to carry on a great leading line of road, that would be very advantageous to the country in general, and which is already perfected up to the frontiers of that county.

545. Will you have the goodness to furnish the Committee with a detail of the cost of the superintendence upon those roads which are under your care?—I will procure it.

546. Are you aware that it is in evidence before this Committee that above 1,000 miles of road are kept up, under the Commissioners of Highland Roads, at an expenditure of superintendence which is limited to the appointment of one superintendent at a salary of 250*l.*, and seven inspectors, at 100*l.* a year each?—No, I am not aware of it.

547. Do you conceive that the system of superintendence proportionate to the number of miles under your care, is equally economical?—The superintendence under our Board at present ought to be expensive, on account of the great separation of the different works. I do not think you will find it expensive where the roads are somewhat concentrated, as in the counties of Kerry, Limerick, Tipperary, and Clare, nor in Galway and Mayo.

548. Does not the centralization of the powers afford you the means of directing your attention to the great and principal works of the country, instead of your money being frittered away in works of mere local and inferior importance?—I think so; but to understand the circumstances of these roads requires some explanation. They were made at the Government expense; and, in consequence of the mismanagement in some county roads in Ireland, it was thought, that as the Government incurred the expense of construction, they might stipulate to be allowed to undertake the keeping of the roads in repair, to prevent their being neglected. It is on that account only that the management is in the Board.

549. Are you of opinion that the conditions upon which the loans are at present advanced are of such severity that money could be obtained elsewhere for the proposed works upon the same conditions; and are you of opinion that those conditions require to be relaxed, and if so, in what particulars, and to what extent?—I have reason to believe that money could not be obtained elsewhere for any of the purposes for which our Board have made advances, upon terms that the parties would think equally favorable; otherwise they would not subject themselves to the control and interference to which they are liable in taking advances from us. There is the case of the Dublin and Kingstown Railway, which is now paying so well, that the shares, after two or three months' working, are at 30 per cent. premium. Hearing a report that the Company were likely to borrow money elsewhere to repay the loan they had obtained from us, I made inquiries, and was informed, that they have no idea of the kind, as they could not in any way improve themselves by doing so. The terms upon which the loans are made might be relaxed, as far as regards the rate of interest demanded.

550. To what rate of interest would you reduce it with respect to public bodies or individuals?—I would reduce it to the rate at which Government procures the money.

551. Can you state what rate that is?—The Exchequer Bills carry an interest of 2*d.* a day per cent., a fraction more than three per cent. per annum, and they are now at a premium.

552. There is a sinking fund required from public bodies; what is the rate of that sinking fund?—It is that the loans shall be paid off within a period never exceeding 25 years.

553. That is four per cent.?—It is four per cent. from the commencement, or five per cent. if the first repayment is deferred for five years.

554. You have the power to approve of the deferring the operation of the sinking

ing fund?—There is a power, with the approbation of the Treasury, for deferring it to any extent; but it is presumed it must be upon some good reason given.

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555. When the loan is first borrowed, you must be satisfied that it is able to bear the interest to be paid, and the sinking fund of four per cent?—Yes.

556. Otherwise you cannot give the loan?—No.

557. In your opinion, would it not be advisable to relax the terms in respect of payment by means of a sinking fund?—Looking at repayment at all, one can hardly conceive that it would be right to lengthen the period in the first instance beyond 25 years; it appears to be a very long period, admitting the principle that it ought to be repaid at all.

558. Then the only relaxation you would make, would be in the rate of interest?—In the rate of interest, if it is to be considered a loan positively to be repaid. There is another arrangement which has been recommended that would be beneficial in certain cases. At present the repayments are at four or five per cent. principal, and four per cent. interest; the consequence is, they are extremely heavy at the commencement, and are gradually in a state of reduction until the final settlement. It is thought by some parties that it would be more advantageous if they were allowed to distribute an equal amount of the payments through the whole period, by taking a medium, say six and a half per cent; thus instead of commencing with eight and nine per cent. and finishing with four, to pay six and a half per cent. throughout, so as to spread it equally over the whole of the twenty-five years.

559. Is that your opinion?—Where the parties think it advantageous, I would give them that advantage.

560. As well to public bodies as individuals?—Yes.

Lunæ, 6° die Aprilis, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne*, called in; and further Examined.

561. HAS the money lent by you to public bodies for Public Works been laid out by them, or under your direction?—Entirely by them, except in the case of the Limerick dock.

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562. Would you recommend any alteration to be made in that respect?—I think where Government contributes the whole of the expense, the Government should have the charge of the execution of the work, but where the parties subscribe it, I think it might reasonably be left to themselves.

563. Do you mean that Government should have the charge of the works where they take a mortgage on the tolls if they advance the whole of the money?—I do, if they advance the whole of the money. Even where parties give a mortgage of tolls, they may be much inclined to increase the amount of the expenditure, but when they subscribe for a given portion of the funds, they feel an interest in economising.

564. Do you think that this recommendation of yours should be retrospective with respect to loans you have made, or merely prospective?—Making it retrospective would be in some measure a breach of faith with the parties who have already entered into agreements.

565. Have you now an extensive superintendence over those works?—We have an extensive control over them.

566. Do you ever pay the money until you are satisfied that the work is effectively completed?—The money is paid by instalments, and upon the issue of each instalment, or as often as is judged necessary, we have an inspection by one of our engineers, to ascertain that the amount is due for work properly executed.

567. Are the accounts of the works subject to your audit?—They are not.

568. Do you not think it is very desirable that they should be brought under your view?—The works are generally under our control; if we find a given proportion done and properly executed, we are sensible the money must be due to that amount.

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569. Are those contracts entered into with your consent, or without it?—We usually require to have the inspection of the contract before it is entered into.

570. Have you the power of compelling the parties to submit to that inspection?—Yes, the mortgage deeds usually stipulate for such extent of control.

571. Are the parties applying for public loans obliged to submit their works to general competition?—They usually submit their plan of proceeding to the opinion of the Board, and our practice has been to recommend open contracts and public competition.

572. Has that been the practice on all occasions?—Not on all occasions, but it is usually done, and not deviated from unless on account of what we consider good reasons.

573. Are you of opinion, that the monies advanced by you for Public Works have been of great benefit to the public?—I am satisfied they have been of very great benefit.

574. Do you speak with reference to the limited amount expended under your direction?—As far as has been hitherto carried into effect.

575. The money so lent by you, you have every reasonable expectation of being repaid, have you not?—I think they will be nearly all repaid.

576. The annual expenditure which has arisen out of your operations has amounted to about 65,000*l.* a year upon an average, do you not think that sum might be trebled or quadrupled with very great advantage to the country?—I do, but the limited extent of issue has not arisen from any want of funds, because we have always till the present moment had sufficient to answer all the demands which have been approved of.

577. How do you account for there not being a greater amount?—I do not know how to account for it; 65,000*l.* may have been the average issues, but loans for works now in progress to a larger amount have been sanctioned.

578. Do you not think, if a further sum of money was placed at your disposal, that further demands would be made upon you for useful works?—Yes, upon the same ratio that is going on.

579. Do you not think that greater facilities in procuring the money might be afforded to parties from these Parliamentary grants?—I have already pointed out, in a previous answer, a few cases where I think the terms might be relaxed in making loans and particular grants that would no doubt be beneficial to the country, and open a door to further applications for loans and grants than have hitherto been made.

580. Looking at the general interests of the country, which are you inclined to prefer, a loan at a very moderate rate of interest, or a grant; looking at both the donor and receiver, is it not more for the interest of the country to lend it at the lowest possible rate of interest?—I think too many advantages cannot be given to the promotion of Public Works in Ireland generally, and I think that grants might be made for them in that country to a very great extent, for the benefit of the empire in general.

581. Specify the cases in which you think the terms should be relaxed on which the grants should be made?—I have already answered that.

582. Are public bodies in their applications to you much embarrassed in the investigation and showing their title?—I believe there is a great difficulty experienced in cases of landed security.

583. That is as to individuals?—Yes.

584. I am speaking as to public bodies only?—I think since our last regulations the security has been cleared of a great deal of legal difficulty.

585. Are they not obliged to incur considerable expense in making out specifications and plans to be laid before you?—Certainly, though not more than they ought. In general we find the plans deficient, the parties seldom go to a greater extent, or even so far in that respect as they ought to do.

586. Does any plan occur to you whereby the expense might be saved and better plans be given?—On some occasions parties desirous of making applications have had communication with our Board before making those plans, and have requested our opinion upon the manner of making them and upon the engineer to be employed. Having given such opinion and feeling confidence in the persons we have recommended, there is usually then a considerable saving in the expense of further investigation.

587. With respect to loans to individuals for the purpose of draining and improving lands you think the rate of interest should be reduced, and do you not think

think the time of repayment should also be enlarged?—The provision for loans in such cases contemplates a security upon the land itself to be improved, and requires that the Board should be satisfied that that land will be improved to the value of at least 10 per cent. per annum, and it is upon this principle therefore that the period of repayment has been restricted to 10 years; but altogether the security upon unimproved lands appears to be very inefficient without some collateral engagement.

588. Are you in the habit of considering the land to be improved as a sufficient security for the advance on the loan?—We have never been required to do so as yet; I should not think it sufficient, there are so many inducements for wild speculation; if we were to take that as the only security, a party might take a great extent of bog land at a nominal rent and speculate with our money; if it failed the loss would be to Government, if it succeeded the profit would be to themselves.

589. Are you not therefore of opinion that great benefit would arise to the country if facilities were offered to landed proprietors by loans of money to enable them to drain and improve their lands, and to what extent?—I think there is great risk in lending upon the security of unimproved lands.

590. But taking their own security, would it not be beneficial?—Decidedly.

591. Is there any means by which you can protect yourselves by advancing only a certain portion, the individual being responsible for the remainder?—I think that would be the best possible security, if the individual would advance a portion of the expense, and only require a portion from Government.

592. What sort of security would you require in addition to the personal security, or a security by way of conveyance of the land itself?—Any thing that is considered as available property.

593. Do you not find persons extremely reluctant to give such collateral security who would be willing to surrender the land itself as a security, and at the same time advance a portion of their own capital upon it?—We have not had any case of that kind; there would be a difficulty in correcting the expenditure on such works; you cannot define them; it is impossible to say in improving lands after a certain expenditure, that so much money has been laid out, therefore it is a departure from the principle on which we usually make loans, which is as for specific works that can be defined, and which we can examine and ascertain that the expenditure has been properly applied.

594. What is the difficulty of defining it?—The improvement of lands is usually performed by laying down manure and other operations, the extent of which cannot be judged of after the execution.

595. Would not that difficulty be removed by leaving the Board to lay out the money?—I do not think the Board would be competent to lay out the money for such purposes, it depends so much upon general farming considerations, the markets and various other agricultural details, that a public board would be very incompetent to regulate with effect. If money is to be advanced for the improvement of land, it should be to the parties interested, and entirely upon the faith of the security without any attempt to control the expenditure, in the manner loans are made to manufactories or other objects of that kind.

596. Suppose a large tract of bog belonging to different proprietors, and those proprietors should combine, and should advance a portion of the capital required for reclaiming the bog, do you think there is any objection to your advancing the other portion, provided the recovering and reclaiming the land was placed under the superintendence of a steward of your own appointment?—There would be no objection to our controlling any specific work like a road or canal, removing obstructions, in the course of a river, or opening some great general line of drain; but I think, for the common operations of the reclaiming and the improvement of land, we could not undertake the charge beneficially.

597. Are you not aware of an Act of Parliament passed in 1831, called an Act for removing the difficulties in the drainage of lands?—I am aware of the Act; it is called Mr. More O'Ferrall's Act.

598. To your knowledge has it at all been acted upon?—I believe in no instance. I think if there had been an instance, it would have come to the knowledge of the Board of Works.

599. Do you recollect the powers that that Act gave?—Generally.

600. To what cause do you attribute its not being brought into operation?—I really do not know to what cause. Mr. O'Ferrall himself commenced acting upon it for the improvement of one of his own bogs, but I believe has not as yet persevered.

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601. Might not some of the powers of that Act be usefully given to your Board?—I cannot understand how it would come into operation under our Board in any way.

602. Would it not be useful to your Board, upon the application of a certain number of proprietors of adjoining land on each side of the river, to remove obstructions in the river, that you should have these powers?—I do not think it would; the powers being given to the proprietors is a better arrangement.

603. Are you not aware that on the banks of the Fergus and the Shannon there are extensive tracts of mudland at present covered at high tide, but which when reclaimed from the sea, have proved to be land of the most fertile description? would you see any objection to the entrusting the Board with a power, upon application by the proprietors, of embanking those lands, wherever they were satisfied such improvements would yield a very large return for the capital expended, charging the landlord with the capital so advanced by the Board?—I would prefer doing it by loan to the parties themselves.

604. Are you not aware that at present great difficulty arises in an undertaking of this kind, from the impossibility of inducing individuals to unite in advancing their own capital, or in making application for a loan which, under the condition of the Act, their estates are respectively liable as security?—I think it would be a great difficulty to throw on a public Board to undertake to do what the proprietors themselves were unwilling to enter on.

605. Might there not be difficulties in the way of settlement?—I think such difficulties should be removed by Act of Parliament.

606. Then I understand in general, that you approve of such objects of embanking the tracts of land alluded to?—I do.

607. An embankment might be a principal and specific object?—It might.

608. If the erection of a large bog drain, with a view to reclaim land, could be rendered equally specific, would you not think that, a fair subject for applying the funds entrusted to the Board?—I should.

609. Has there not been considerable difficulty in making out a title by individuals to the Board?—I am not aware of any difficulties, but I believe that a proper and efficient mortgage on landed security must necessarily be expensive.

610. Has any mode occurred to you to lessen the expense, and the difficulties which occur in that respect?—No; it has not occurred to myself, but I have heard it mentioned that other modes might be suggested.

611. What are those modes?—One was, to make such loans the first charge on the estate.

612. Would you approve of that?—I know there are many who object to it, and many persons who advocate it.

613. What is your opinion?—My own opinion is, that it would be reasonable, because if there are grounds to suppose that the estate generally would be benefited by the operation, I cannot understand how any party could suffer by such a power.

614. In that case would not all difficulties as to the title be removed?—I imagine they would.

615. Would not an expenditure of that kind be liable to the same imputation hich you brought upon the expenditure in the former case, of being in the nature of a speculation, which might possibly fail, and which possibly would leave the posterior creditors in a worse condition than they were before?—It might have that effect certainly, and I imagine that would be an objection to it; but there would be a check against an improvident speculation in the Report of the unprejudiced surveyor employed by the Board.

616. You stated there were other modes thought of, do you recollect what they were?—There was one of reducing the fees on searches; they are very expensive, and being payable to Government, it might be possible to dispense with them, as has been done with regard to stamps.

617. With reference to the reclamation of waste lands, have you thought of any specific measures which would tend to encourage such reclamation?—I am not aware of any general measure, except of making roads and navigations and other works of that kind, which tend very much to encourage the improvement of lands in their neighbourhood.

618. Do you think it desirable to entrust grand juries with the power of reclamation for the purpose of employing the poor tracts of land under certain conditions and in very favourable circumstances?—It might be very useful to employ a system

of

of that kind, even at the expense of the risk of not meeting with a fully remunerating return, inasmuch as it would afford employment to the people, who are in a state of destitution from want of labour.

619. You think that something of the nature of the poor colonies in Holland might be introduced, subject to the control of Government?—Yes, I think it might.

620. In your opinion, would not that be more beneficial than emigration?—I think so; the same expense employed in emigration would probably be more beneficially employed in the country.

621. Would not such establishments, if well conducted, be made to act as useful agricultural model schools?—They would certainly, if a proper system could be devised for them.

622. Would it not be useful, in your opinion, to give powers to grand juries in cases of mendicity associations, to let land for the purpose of improving and cultivating it?—It would be very useful in the country no doubt, but I am not quite sure whether grand juries are the best persons to manage them or not.

623. What other persons would be?—I do not know. I mean the principle appears good, but I am not sure how far they could be regulated to avoid abuse or mismanagement.

624. You are aware that grand juries at present have the power of appointing in the case of gaols, a committee of superintendence, and it is generally found that the management of gaols in Ireland is under that control subject to little or no abuse; and do you not think a power might be given to grand juries of appointing a similar kind of superintendence in the case of these poor colonies?—I am not aware of the fact, but it is a strong argument, if correct, that the same principle might be adopted for the improvement and reclamation of lands.

625. With respect to loans, does it appear to you it would be more beneficial to leave the time for the repayment rather to the discretion of the Board and the Lords of the Treasury, than to have the time fixed, as it is by the Act at present?—Twenty-five years appears to be a reasonable length of period to be given in the first instance, and there is always power to prolong it further if necessary.

626. Then you would make no alteration in the Act in that respect?—I would not.

627. One of the advantages of the money advanced by Government for loans and issuing Exchequer bills was, that the bills should be issued in Ireland, was it not?—It was, and the interest payable in Ireland.

628. And it has proved beneficial?—I am told by monied and mercantile men, that that measure has been of great service.

629. Would you not recommend in any future loan of money for this purpose, or any other purpose connected with Ireland, that Exchequer bills should be issued there, and the interest should be payable there?—It appears to me the most useful mode of making issues that could be adopted for such purposes, but it would be convenient if the Board had the power occasionally to issue money for small loans.

630. For what purpose?—For all purposes of the advance of small sums.

631. To whom is the premium now paid arising from Exchequer bills, or who receives the premium now paid?—It goes to the benefit of the work it is accounted for. If we lend 1,000*l.* and there is a premium it is added to it.

632. Does it form part of the money borrowed?—Yes, they account for its expenditure.

633. Would not the parties get the benefit of the premium?—They would; but we have reason to know they apply it to the works.

634. They do not pay it to the country?—No.

635. Supposing the party borrowing agrees to make the work for 100*l.*, and the Exchequer bill which is issued to him produces 102*l.* in the market, does he not get 2*l.* more than he bargained for?—He does.

636. Are you aware, in England, that in issuing Exchequer bills for Public Works the 2*l.* is charged to the party?—In that case I imagine that the Exchequer bill must be negociated before the money is issued; there the issue is in money, and not Exchequer bills.

637. Would you see any objection to pursuing the same course in Ireland?—The consequence would be, we should have the negociating of all the Exchequer bills and issuing money for them; I do not see any reason why that should not be done.

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638. Would not the premium so received defray the expenses of the establishment?—Certainly not; it is not an annual interest; it is only on the first issue of the bill.

639. Suppose the premium on Exchequer bills to be 30*s.* on 100*l.*, would that not be a total saving to the country on the whole issue of 500,000*l.* of 7,500*l.*?—Yes.

640. If no further money should be advanced by Government, and the original fund exhausted, how long would it be before you could again resume the lending of money?—It would take a period of twenty-five years before the whole 500,000*l.* could be reissued; it requires the amounts to be repaid and the Exchequer bills to be paid off before we can reissue them; that is, there must never be more than 500,000*l.* outstanding at a time upon these loans; and it is only as they are repaid they can be re-issued.

641. Does that principle extend to the loans under former Acts now in the course of repayment?—No; they are never reissued at all.

642. Do you not think it would be necessary that the Act should be altered in that respect, and when monies to the amount we will say of 10,000*l.* are repaid, that there should be again a reissue as to that extent?—That is precisely the law as it at present stands; for instance, in July next we shall have 5,000*l.* or 6,000*l.* which we shall be able to reissue a second time; but the reissue under the present law would be very slow.

643. It will be more accelerated in future?—Yes; but still it will be twenty-five years before the whole is reissued.

644. Are you restricted from reissuing as the money comes in?—The money must come in, and Exchequer bills to the same amount must be paid off; the first Exchequer bills will be paid off in the month of June or July next to the amount of 9,000*l.*, and we can reissue then to any amount within that sum that shall have been repaid; there is, however, a question in my mind as to which I am not satisfied how the Act would operate; the clause stipulates that there shall never be more than 500,000*l.* of Exchequer bills outstanding on account of these loans, and if these Exchequer bills are renewed, as the monied and mercantile men are anxious they should be, and as they are in England, instead of their being paid off, whether that would, under the terms of the Act, prevent the reissue; such reissue being in new bills would occasion more than 500,000*l.* in the market at once.

645. Do you conceive you will be in a situation next June to give notice that you will resume the reissue?—We have not had occasion to give notice of the funds being exhausted yet; we have a few thousands left.

646. But if those thousands so left should be paid in the course of this month, would you then be in a situation to resume the further lending next June?—We should, to a small amount.

647. Are your accounts subjected to the Audit Board?—Part are, and part are not.

648. What part are not?—Those which have originated in the recent Act are not; they go direct to the Treasury; some of the accounts proceeding from the working of the old Acts go to the Audit Office.

649. Do you not think it desirable that all public accounts should be subject to audit?—Certainly; but the accounts are very effectively audited in our own office, and there is a considerable expense in preparing accounts for the Audit Office.

650. Upon what ground do you charge the grand juries five per cent. upon loans, and public bodies only four per cent. upon loans?—Five per cent. is the sum stated in the Act, and we take it for granted that is the sum meant to be imposed, unless an exception is required for reasons given.

651. Do you not think it would be advantageous to Ireland to let grand juries who give unexceptionable security, have the money at the current rate of interest of Exchequer bills at once?—It would. Whenever we have recommended a lower rate of interest, it has always been assented to by the Treasury.

652. In point of fact, as the practice at present stands, Great Britain lending to grand juries in Ireland, makes a profit upon the loans of two per cent. on the most unexceptionable security?—Yes, but the understanding was, that that excess of interest should pay the expenses of the Board in the management of the fund.

653. Do you mean to say that the excess of interest pays the salaries of the officers and the expenses of the Board?—I believe it would pay the whole expense of the Board.

654. Is

654. Is not two per cent. on 500,000*l.*, 10,000*l.*, and are not the expenses of your office something less than 3,000*l.* a year, showing a profit to Great Britain, as the lender, of 7,000*l.* a year upon these loans?—A great portion of these loans are at a less rate of interest than five per cent., and the expenses of the entire establishment of our Board are more than 3,000*l.*; they amount to upwards of 5,000*l.*

655. Do you consider it equitable that the parties borrowing this 500,000*l.*, which you are authorized to lend, should be charged with the whole maintenance of the expense of a Board; a Board embracing other objects besides the advance of this money?—It is not for me to say that any measure of Government, and sanctioned by the Legislature, was not equitable. Perhaps the consideration that the Board has a great many other duties to perform besides this loan fund; more duties than were probably anticipated when the Board was constituted; the consideration of paying them out of that particular fund might be abandoned.

656. Are you not aware there is an annual grant of 5,000*l.* a year for the management and repair of the Highland roads?—It appears so by Mr. Rickman's evidence, which is printed.

657. Do you not consider the security of the grand jury presentment as unexceptionable?—Quite so.

658. Are you aware that loans are made by the Exchequer Bill Office in England at a much lower rate of interest than in Ireland?—I am not aware of it.

659. Now as to fisheries, the several powers given to the Boards relating to fisheries in Ireland, previous to the passing of the Act in 1831, have been transferred to your Board?—They have.

660. Have you been called upon to act in pursuance of those powers?—We have, frequently.

661. In what respect have your powers been called into action?—To interfere in what have been considered breaches of fishery regulations, and to take measures to prevent combinations among fishermen on particular parts of the coast.

662. Have you been successful in your endeavours to put down those combinations?—We have not; we found we had no powers.

663. What was the nature of the combinations?—I can give one recent instance: the fishermen of the Bay of Dublin complained of having been interrupted by those of the Skerries (which is a little to the north) in their attempts to fish and to land on that part of the coast, and applied to the Irish Government, who, upon consulting the law officers of the Crown, were informed, that the only remedies that could be applied must be through the Board of Public Works, as successors to the late Fishery Board. Upon looking at the Act, we found that all the regulations were so mixed up with the system of bounties that they could not be separated from them, and the bounties now being done away with, the Act was in point of fact inoperative; but even otherwise, we have no funds for carrying any regulations into effect, nor any establishments on the coast to entrust them to.

664. Is there not a fund of 16,000*l.* belonging to the Fishery Board?—There is, but the application is limited to certain purposes which are defined, which I do not precisely remember; but it gives no general discretion in its expenditure.

665. Does not a large portion of that sum consist of a balance in your hands applicable to the building of piers?—I believe it was vested for that purpose, but it is no longer applicable. We considered we had no power to commence new operations with that fund. We obtained authority last year from the Treasury to extend the operation of that fund in repairs to the piers that were very much in want of them as a temporary measure, till some fixed regulation should be entered into for their future preservation.

666. Were many of the piers for which Government had granted sums unfinished at the time the present Board came into operation?—Very few; only three or four, I think.

667. Is any part of that sum in your hands applicable to the completion of those works?—It is, and we are now completing them from those funds.

668. Supposing a power was given to the grand jury of presenting half the amount that would be required for building a pier, provided the Board were willing to contribute the other half, would you consider yourself justified in applying any part of that 10,000*l.* to that object?—This balance has arisen from certain votes under an Act, the particular provisions of which I do not distinctly remember, and therefore I am not aware how far those provisions might be infringed upon by such an appropriation.

 669. What

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669. What means have occurred to you for preventing this combination among fishermen?—I think the whole Fishery Law requires consideration and revision.

670. In your Report, I see there is a suggestion that it would be desirable to call upon some party to make a specific report as to the measures which were useful for encouraging fisheries; has that suggestion in view the appointment of a commission for that purpose?—The question of fisheries is a very important one, and requires a great many researches, and a great deal of consideration; and I do not imagine that can in any way be better done than by a commission appointed for the purpose, unless some gentleman, a Member for one of the maritime ports of Ireland, would undertake the inquiry, and bring in a measure for the purpose.

671. Has any particular plan suggested itself to you to prevent this combination? —I think combinations might in a great measure be prevented by the remedy applied for on the part of the fishermen, which was merely to require that all the boats on the coast should be numbered, and have their owners' names painted conspicuously upon them, which would give the opportunity of detecting the parties and having them punished, and thus probably prevent any future aggression.

672. Are you of opinion that pecuniary assistance might be usefully given to the fishermen, for the purpose of enabling them to make larger boats than they have at present?—There was a loan fund for that purpose some years ago, but the fishery was so precarious, that one or two successive bad years and the removal of the bounties threw the men into distress, and a very small portion of the loans was recovered.

673. Would you recommend the renewal of bounties?—I think the whole question should be considered by the commission; I have before stated, it involves so many considerations, and so much matter of very great importance.

674. Do you think the powers given you by the Act are sufficient, or that any further powers should be given to your Board, or a distinct board formed relating to fisheries?—I should like to know what are the nature of the duties required, before I could give an opinion as to whether our Board could efficiently perform them.

675. Do you find generally that loans to an inferior class of persons like fishermen, are as punctually repaid as when made to persons of a higher class?—The only loans we have cognizance of to that class of persons have been to fishermen, and they failed for the reasons I have mentioned before.

676. Have you, in fact, abandoned all hopes of recovering a great proportion, if not all, of those loans?—Yes, we have recommended the Treasury to absolve them of their engagements altogether, and it has been assented to; the endeavour to enforce repayment only led to law costs and increased distress.

676*. In the former part of your evidence, you recommended the building of small piers, and also powers to be given to grand juries to contribute towards the building of such piers; have you thought of any mode of providing for the repairing of those piers and small harbours when erected?—I have thought of several modes of providing for the repairs.

677. What particular mode occurs to you as most beneficial?—I was inclined to think that a small toll on all vessels making use of the piers might be made available; but in very remote parts, where they are little used, the expense of collection would be more than the receipts; in such cases, I think the grand jury might contribute to the repairs, as they do to the repairs of roads; the expense would be very trifling.

678. Would not the piers and small harbours be extremely useful to afford shelter to fishermen, and enable them to prosecute their business?—Not only highly useful to the fishermen, but they encourage in a great degree the improvement of the lands in their neighbourhood, and are made little ports for sending out the produce, and introducing articles that are wanted.

679. Do you find in general they give rise to small villages in the neighbourhood? —They do. I have been told that the little circle under their influence frequently resembles an oasis in the desert.

680. I believe you are acquainted with Scotland?—I am.

681. Have not several towns sprung up by means of the encouragement given by the British Fishery Society to the fisheries on the coast?—There have; but the Scotch have shown a greater disposition to prosecute the fisheries than either the English or the Irish.

682. Are not the same facilities afforded on the Irish coast to the fishermen as are afforded on the Scotch coast?—I should imagine that the Scotch are not

so entirely without regulations as the Irish fisheries are, but I am not aware of the fact.

683. Is it not your opinion that there exists a large and most productive field for enterprise and for the investment of capital, as yet undeveloped, in the Irish fisheries?—I understand the coast of Ireland to be particularly favourable for fisheries.

684. Do you not think that an enlargement or extension of the existing fishery piers would be desirable, so as to enable vessels not exceeding thirty tons' burden to take shelter at all stages of the tide?—Many of the existing piers are capable of great improvement, and an increased number of small ports on the coast of Ireland would be extremely beneficial: they are not, however, places of refuge, unless they afford shelter at all times of the tide.

685. Would it not be advisable to make a free grant of one-half the expense of such enlargement or extension, or for the erecting of new fishery piers, and that the granting the other half by the respective grand juries should be compulsory, and that such moiety should be advanced by the Board or Treasury on the usual terms?—We have a power to that effect at present, to an extent not exceeding 1,000*l.* for each pier.

686. Will you add to that answer in which you state you have the power to a certain extent, whether you think it desirable to give an enlarged power to the Board, as, for instance, supposing a pier required 3,000*l.* or 4,000*l.*, whether you should not be allowed to contribute one-half of that, the grand jury contributing the other half?—We cannot exceed 1,000*l.* grant at present, but I think it would be very desirable to enlarge the power and not to limit the amount.

687. Would it not be desirable to have some persons appointed superintendents, to see to the piers and keep them in repair, as you would suggest respecting roads?—Some person in charge would be very necessary, but for many of the small piers the expense of a formal superintendent would be too great.

688. Could it not be put under the control of the County Surveyor?—I think it would work better, perhaps, under the Coast Guard, for this reason; that they are on the spot in most cases, even in very remote situations, and the expense would be small. I would not lay down any precise law, because different cases would require different systems.

689. Would it not be right to exact tolls from vessels seeking shelter?—I think it would be reasonable to take tolls from vessels receiving shelter, and also from boats and others receiving benefit from the work; but in some cases, where the piers are but little used, I fear that the expense of the collection might be more than the actual receipts.

690. Could you not let out the tolls?—You might in some places.

691. Why not in all?—You could not get a person to take them. There is another point worthy of notice, which is, the propriety of enforcing some regulation as to these piers. I have known the case of a person taking possession of one of the piers, and landing his goods upon it, and entirely occupying the whole of the pier, to the exclusion of every body else, for months and longer.

692. How would you prevent such an occurrence?—By a power on the part of the individuals employed by the Board to levy a fine.

693. Do you not think such a power might be entrusted to two magistrates?—Certainly, where the magistrates are at hand. In many cases of these piers, magistrates are not to be found within twenty miles.

694. Might there not be a superintendent for a certain district, though not for each particular pier, to whom powers might be given for effecting that purpose?—The situations are so very remote and distant from each other, many of them are only to be approached by boats, with no roads to them at all, and so much so that our engineers have found at times great difficulty to get at them; they found them, however, notwithstanding extremely useful to the poor people and the little colonies around them.

695. Would it not be desirable in those cases to make roads from the piers so as to cause a communication with the leading lines of road by the Board?—Many of them are so far from the leading lines of road, that for this object alone it would hardly be worth the expense to construct a road; you cannot lay down any general system for all cases.

696. At present you have the power of giving grants to the amount of 1,000*l.*; have you not also the power of keeping the works in repair?—No; the parties

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who provide the other moiety are bound under the present law to make arrangements for their preservation.

697. Are you of opinion that that should be in the hands of the Board and not in the hands of private individuals?—I think these piers might be kept in repair in the same way as the grant roads are by the Board, and repayable by grand juries.

Mercurii, 8° die Aprilis, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne,* called in; and further Examined.

Colonel *John F. Burgoyne.*

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698. ARE there not, according to the Report of the Commissioners, somewhere about three millions of acres of bog and mountain-land unimproved, and in a state of waste in Ireland at present?—There is an immense extent of mountain and bog.

699. That includes mountain as well as bog?—Yes.

700. There are great impediments to the cultivation of those tracts of bog at present, owing to the vague nature of the property of the joint owners in the neighbourhood of them, are there not?—There is a difficulty in effecting the drainage of large tracts of bog in consequence of the mixture of properties, which was attempted to be relieved by the Act brought in by Mr. More O'Ferrall, two Sessions back.

701. Has that been successful?—It has not been operated upon at all in any instance; I believe if it had, the Board of Public Works would have had cognizance of it.

702. What is the cause of its inoperativeness?—That I am not aware of; I presume some difficulties were found which were not anticipated.

703. Have you ever contemplated such a proposition as this: supposing a power was lodged somewhere, in your Board for example, to undertake by consent of a certain proportion of the persons interested the reclamation of a tract of bog or mountain, and the first steps to reclaim it taken, making the main drains and so forth, that the Board should be empowered to undertake those improvements by consent of a certain proportion of the persons interested in the property, and to repay themselves for the expense by a sale to the amount required of portions of the land so reclaimed, dividing afterwards the reclaimed waste among the different owners, in the proportions of their respective properties as determined by a jury?—I doubt whether it would ever pay the expense if done on a large scale. I think all reclamation of bog or mountain lands must be performed by degrees, by small measures of improvement.

704. You do not mean by an individual merely taking in a tract of a quarter of an acre or an acre of land?—Not perhaps in such very limited quantities, but in small portions, and bringing them into cultivation by degrees, paying only a nominal rent for a certain number of years.

705. Is it not the fact that these bogs require improvement on a very large scale; the making of a great drain or a road across them which is beyond the power of small tenants of combined owners till their shares are ascertained and all chance of litigation at an end?—The roads can be done well by our Board; it is the kind of work within our province.

706. Is it not the same in respect of drainages?—Yes, but I believe it is rare that any large artificial drains are necessary.

707. In the case of a large bog of 100,000 acres for instance, might not an improvement on a large scale be carried on advantageously to the country?—I think not, if it is meant to the return of an immediate profit.

708. Is not a general drainage in those cases sometimes necessary, and would you not give a power to the Board of a general drainage?—Yes, I would; I said before that I thought our Board might be employed beneficially in making roads or canals or navigations, or any specific work through a bog, but not in the agricultural reclamation, such as laying manure or preparing the land for crops; the drainage is a very small portion of the expense; in the reclaiming of bog it is necessary to put materials upon it, which is the heavy part of the expense.

709. The

709. The only work you would be called upon to make is, the main channel to convey the water from that district?—That we could do; and it appears to be a proper application of the public money to open roads from any considerable outlet for drainage, and such works as are necessary before a reclamation can take place.

710. Have you read and examined the Report on the Waste and Bog Lands of Ireland?—I have read a great many parts of the Bog Report.

711. Do you agree in the conclusions there drawn as to the practicability?—The opinions formed by the engineers at that time were very favourable as to the profits to be made from the reclaiming waste lands, but I suspect that the result has not answered those anticipations. Many Members of the Committee can give much better information upon that subject than I can, and if the Committee think of calling Mr. Griffith, as I understood to be the intention, he will be able to give very valuable information on it. He was engaged in making those Reports, and he is a practical and scientific man, and is, I believe, at this moment reclaiming bog in the Crown lands.

712. In your evidence the last day of examination, you spoke of the utility of grand jury assessments for the improvement or repair of fishery piers; do you think it would be advisable to apply that to the landing piers necessary on the Shannon for the landing of goods?—I mentioned that I thought it might be usefully applied to works of any degree of public utility.

713. How would you propose that those piers should be kept in a state of constant repair?—Contemplating that Government would pay part of the cost of construction, my idea was, that Government officers might keep them in repair as they do the roads.

714. The question refers to the piers necessary along the Shannon for internal navigation; would you recommend the adoption of tolls for the repayment of the expense contracted in the execution of those piers in the Shannon?—It would be very desirable to have power to levy tolls on such works, partly to pay the expenses; for it would be a reasonable charge on the persons who benefited by them, and also tend to give a power of regulation, which it is sometimes difficult to enforce without a toll; but there is one difficulty: to levy tolls requires a specific Act of Parliament for each case, and unless there was a general Act which would give a power to embrace a great number of such objects, the expense would be too great for any one such work. I believe there is a difficulty in giving a general power; there was an Act in the last Session of Parliament, to which, I understood, The Speaker had objected on some constitutional grounds.

715. Do you allude to the Bill brought in by Mr. O'Connell for inland navigation?—I believe it was that.

716. Do you believe a power of regulation could be given without a power of toll to prevent, for instance, the landing of different articles on those piers, or suffering them to remain there without permission on the part of those persons who had contracted for the repairs?—Certainly; only it would be more expensive.

717. Does your experience lead you to think that the want of this power of regulation very considerably contributes to injure piers and render frequent repair necessary?—Yes, it does; boatmen are in the habit of even stealing the stones of the piers for ballast, and positively destroy the very edifice which gives them shelter. They do the same on the roads; they build their houses from the stones taken from the very bridges as well as fences in the remote parts of the country.

718. It is very important, when the outlay of the public money is in question, that due provision should be made for the permanence of the work executed?—Yes; and in the case of piers the want of such provision is much felt.

719. That is a clause which you think requisite in any future Act?—It is very much wanted; but with regard to the fishery piers, I think it might make part of the inquiry which I before said was necessary for a revision of the fishery laws, which are at present totally inoperative.

720. Do you think the County Engineer or Surveyor can act as Inspector over those, and that a clause could be introduced into the present jury law to enable him to keep the piers in repair?—The County Engineers have more duty at present than they can perform.

721. Do not you think that the persons to whom are entrusted the repairs of the piers ought to be the persons to have the regulating power?—Yes; they would be able to do it, and do it more efficiently than any others. At present, the charge of the repairs is laid upon the person who provides the moiety of the expense of construction; piers have been taken possession of in some instances by parties for a considerable

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a considerable time, to the exclusion of others, and there is no power of applying a remedy.

722. Could not some arrangement be made, or a power by Act, to make an arrangement between the Board of Works and the grand jury of the county to nominate some persons to superintend the pier, and enforce whatever regulations might be considered necessary?—I do not apprehend there would be any difficulty in making arrangements for that purpose; I think it would be difficult to make any joint appointment.

723. Do your remarks with respect to piers in a former part of your evidence apply exclusively to fishery piers?—They have all been called fishery piers in the Acts of Parliament, which authorize grants of money, and for that reason we continue the designation, but many of them are quite as efficient for agricultural improvements as for fisheries.

724. A petition was presented to the House of Commons last night, praying the construction of a pier called Ballyvaughan, in Galway Bay; are you acquainted with the localities of that spot?—I have had occasion to examine the plans and the projects for that very work.

725. Is it your opinion that such a pier would be useful to the Bay of Galway and to the export of agricultural produce from that part of the county of Clare?—As far as we went into the examination, we thought it would be useful.

726. Have you any suggestions to offer to the Committee with respect to establishing a regulation and control on the part of your Board over the county surveyors?—I think some central authority over the county surveyors might be useful to regulate their proceedings, and to carry the improvements which may be made by one into other counties. At present they all act independently; and if one begins in error, he may continue so for twenty years.

727. They were all examined before you?—Yes.

728. Do you think them all sufficiently qualified to prevent the risk of their making any great mistake?—We found many of them in some degree deficient in particular points.

729. Did you reject all who were inefficient?—No, not all, we recommended the best; we did not think all of them perfectly qualified to the extent we considered desirable.

730. Has your Board the power at present of removing the county surveyors from one county to another?—We have nothing to do with them.

731. Do you think it desirable you should be invested with that power?—No, I think it should remain with the Lord Lieutenant; he has that power under the Act.

732. Has he it without an application from the grand jury?—I believe he has. With regard to the competency of the county surveyors, I think the result of that examination would tend to improve them; many of those gentlemen must have become sensible that they were deficient in some points, and that which was made apparent to them I have no doubt they have endeavoured to correct.

733. Do not you think that a regular school for civil engineers, such as exists in Prussia and France, would be a much better guarantee to the public for fit persons than the examination of any Board?—That would require much consideration.

734. Would not such a system as that lead to a monopoly on the part of the corps that was instituted under Government?—That is one difficulty I should feel about it, that it might tend to force the whole of the employment on the persons educated in that school, and prevent that of others who might be fully competent.

735. What particular description of control would you suggest to be vested in the Board over the body of county engineers?—Such a control as would assist them in their operations, and tend to introduce the best mode of carrying into execution the Public Works. I would have occasional inspections by a superior class of engineers, sent by the Board round the country to examine the works and report on the system on which they were performed, who would propose and suggest such corrections as might be desirable, and such improvements as are made every day in England and other parts of the country, which cannot otherwise come under the cognizance of gentlemen in the distant parts of Ireland.

736. To whom would you have that inspection reported, to the grand jury, or to the Government, or to the Board?—In the first place, I would have it made to the Board; it might subsequently be laid before the grand jury or the Government; such an arrangement would not interfere, I apprehend, with the legitimate power of the grand jury; the object being more to cause their works to be executed with more

economy

economy and skill. It might be made the means also of pointing out to grand juries how various operations might be combined by contiguous counties.

737. In that case your establishment must be increased?—Yes.

738. You have but one engineer at present?—We have but one engineer at present, but we employ others as their services may be required; we have a very considerable number of roads, and they are daily increasing; it is in our contemplation in a short time to employ an engineer expressly for the purpose of roads, that is, whenever we shall have sufficient to bear the charge; we think an engineer for that distinct service would be very useful, and we have even a gentleman in our eye for the situation, who we think would answer remarkably well.

739. Do you think it desirable that a report should be sent from each grand jury half-yearly to the Board of Public Works to enable them to form a proper idea of the works going on throughout the country?—Collecting such information might be, no doubt, very useful; but it perhaps might be more respectful to the grand jury if the communication was made to the Irish Government, who would probably communicate it to the Board.

740. Do you think that the reducing into a condensed form the information so received, and communicating it to the several grand juries in Ireland, would contribute to the improvement of the proceedings they adopt in the formation of their Public Works?—All the counties would no doubt derive useful information from such a collection of facts, and perhaps be more ready to combine their operations.

741. It would be useful to have six engineers, one to go each circuit and attend each grand jury at each Assizes, to pass his opinion on the plans and elevations submitted to the grand jury, would it not?—I think some superior judgment upon the county works would be very desirable, but I cannot say exactly that the arrangement proposed would be the best; I should think that by the plan before proposed, of putting the operations of the county surveyors under the investigation of the Board of Public Works, the effect might be answered.

742. Do you conceive that the county surveyors are at present adequately paid?—No, I do not, by any means.

743. Has a search for coal mines come under your cognizance?—We have had one application for opening a culm pit.

744. In what part of Ireland?—In the county of Cork or Tipperary.

745. Did you comply with that application?—It was assented to, but not followed up by the party.

746. What is your salary as Chief Commissioner?—Mine is 1,000*l.* a year; the other Commissioners 600*l.* a year each.

747. What were the duties of that office at the time you were first appointed to it?—They were various; they have been added to very much since; but I imagine it was in contemplation at the time we were appointed that many duties would be added; I think, as far as our salary goes, it is liberal, and we do not complain, whatever duties may be put upon us.

748. Might not the duties be so increased as to render it impossible for you to perform them?—Whenever any new duties are put upon us we have been hitherto consulted to know whether we are equal to undertaking them, nor have we ever objected as yet.

749. In the Committee on the Shannon Navigation you stated that you would be able, with the assistance you at present have, to take the entire direction of the Shannon if put under your direction?—I do not know that I went to that extent; if I did I must have alluded to the body of Commissioners only; we have taken a great number of duties under our superintendence with a very small increase in the number of the establishment, and we have carried it quite as far as it will go with the same number of persons employed.

750. Can you state to the Committee what is the amount of the arrear due to your Board?—The arrear is on the table.

751. How much of that do you consider irrecoverably lost?—I have before stated.

752. What steps do you take with regard to treasurers of counties who are behindhand in their balances?—It is a general custom, I believe, in collecting repayments, to give a certain degree of latitude, and we have given that latitude to county treasurers, but not at all beyond what we considered reasonable; whenever the repayment was deferred to such an extent as we did not consider proper, we appliedt o the grand juries, and in one or two cases we put the matter into the hands of our solicitor.

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753. What delay do you consider not too great?—I imagine that a month or six weeks is not too long.

754. Do you ever allow it to exceed that time without taking steps to enforce repayment?—No definite time has been fixed, but it is attended to by our accountant, and is reported to the Board if the repayment is delayed more than usual; we then commence by remonstrating with the party, which usually has the effect of producing the money.

755. There is a balance almost every month against the public?—There must be a balance unless the day of repayment is identical with that on which the account is made up.

756. Still there appear to be in some cases small outstanding balances, as if the treasurer of the county and the Board were not quite agreed as to the sum exactly due to the Board; is that the case?—They are quite agreed now; when we first went through the accounts there was a little difference on the extra charge made, in consequence of having considered that they had not been properly settled before, but in every case, upon consideration, the parties have abandoned their objections.

757. Do you mean to say that, except in the case of one county, there is at present no treasurer seriously behind-hand?—There is no treasurer at present considered so far behind-hand as to require any extraordinary steps. I had a letter only a few days ago on that very subject from Ireland; it would be very hard to allow of no excuse for not paying on the precise day; there may be a thousand circumstances to account for it, illness or a variety of considerations to prevent it; and as it is not usual, I should be very sorry if the Board were to commence a system peculiarly rigid beyond that of any other party; if it is to be so I should prefer its being forced upon us.

758. Is there any assignable reason why a county treasurer should be in arrear three weeks after the assizes, he having the money in his pocket?—I am not aware, but I think the county should regulate that themselves; they have the power of doing so.

759. In point of fact it does not come before them?—They have the auditing of the account.

760. It does not come before them for nine months after the error has been committed, whereas the Board of Public Works is a permanent body?—There is a certain latitude generally allowed in making repayments, and I think if we had endeavoured to commence a system different from that usually adopted, there would have been a great outcry made against the Board, and perhaps with some reason.

761. The county treasurer has the money in his hands, and therefore it would appear there is no reason why he should not at once pay it over to the Board?—There is no reason, certainly, if he has the money.

762. What is the longest time you have known of a county treasurer having the money in his hands and withholding it from the Board?—I do not know the particulars from memory. One of the Commissioners is a very superior accountant, and has taken particular charge of that branch of our business; he says that he considers the payment is very fair on the part of the county treasurers, and he is not at all inclined to be too lax; for by reforming the system of repayment he recovered at once a considerable balance for the public.

763. Do they make default in payment when called on?—We give notice of the periods when money is due, and they pay within a reasonable time afterwards.

764. There is a good deal of difficulty in making the payments at present, is there not; as the treasurer must come himself or appoint some person in Dublin to make a lodgment?—I believe there is no difficulty in making the payment through the Branch Banks or sending remittances.

765. Have you known cases in which the county treasurer has delayed for three months to make the payment?—I cannot state the precise time, but I rather think it has exceeded that.

766. Does any injury follow from the delay which takes place?—Injury follows to the county, none to the public, for we charge interest to the day of payment; but if that excess of interest is charged to the county, of course the county suffers by it; the treasurer himself ought to pay it if he delays it by his own default.

767. You charge that interest in the next charge to the county?—We charge interest to the very period of the repayment; that is contrary to the old system, but it is correct, and has been the means of effecting a considerable saving to the public, besides promoting more prompt payments.

Alexander Stewart, Esquire, called in; and Examined.

768. YOU are solicitor to the Board of Works?—I am.

769. Have you been employed by them in perfecting any loans?—Yes, several.

770. With public bodies as well as individuals?—Yes; very few with individuals however.

771. Did you require the title to the estate to be submitted to you in the case of individuals?—Yes.

772. In like manner as if you were about to complete a purchase or a mortgage?—Yes.

773. Did you observe the same strictness of investigation?—No.

774. In what respect did you make a difference?—There was a liberality on the part of the Board to facilitate loans that there would not be in the case of an individual.

775. Have you made searches for judgments and other incumbrances?—Yes, for incumbrances in the Registry.

776. Were those searches for judgments and incumbrances attended with great expense?—I do not know that I ever searched for judgments against any one.

777. Why did you not?—The individuals to whom the Board lent money have been very few; I could almost name them all, and the securities did not require judgment searches.

778. Name them?—The Knight of Kerry was one; the security he gave was a charge under a power of appointment, which he had under a family settlement, and he appointed accordingly.

779. Would not prior judgments affect that?—I think they would affect the estate.

780. Why did you not search for judgments?—Because the title to estate had been lately under investigation by legal men in London; and there was an existing mortgage to the extent of 24,000*l.* or thereabouts, to which it was agreed the Board should get precedence.

781. Did the mortgagee consent to your getting precedence?—Yes, she did.

782. Then you were satisfied with the title she had?—Yes, nearly so, but under the Attorney-General's advice.

783. Where you were not satisfied, would not you think it necessary to search for judgments in all the courts of Dublin?—Yes, certainly.

784. Are not those searches attended with considerable expense?—Not so great as they were, but they are attended with considerable expense.

785. Do you remember the whole expense attending that loan to the Knight of Kerry?—Somewhere about 100*l.*

786. What was the sum raised?—Seven thousand pounds, but that 100*l.* included the whole expense; there was no other solicitor employed in Ireland.

787. Do you know whether he employed a solicitor of his own upon that occasion?—None, in Ireland; I got the statement of title from the solicitor to the mortgagee, of whom I have just spoken, and the Knight of Kerry probably paid for the copy of it.

788. Will you state the expense attending on another loan you made to an individual?—Some of them about 3*l.*; we have the power to lend on personal security.

789. When you lent on real security, what was the expense in respect of one other case; take Lord Duncannon's for instance?—It was this; he applied for 2,000*l.* to drain, and the Board were anxious to lend him the 2,000*l.* upon the bond of himself and one or two other persons he proposed, but on looking to the Act of Parliament, found the Board were limited, in the case of personal security, to 1,000*l.*; it was suggested to him the propriety of proceeding with the loan, which however he did, and his English solicitor sent over to me a statement of his title; it was very voluminous and very complicated, so large a title that I was obliged to give the Attorney-General a considerable fee with it and the deed of mortgage.

790. Then he had to pay a solicitor in both countries?—The solicitor in this country had little to do; he sent me a copy of that which existed.

791. Did he not charge for the copy?—Yes, I suppose so.

792. What was the charge of that copy?—I do not know; it must be very trifling.

793. Can you state the expense attendant upon that?—Yes, upon that loan it was 120*l.*, or thereabouts.

794. And the whole amount advanced 2,000*l.*?—Yes, it was too much; I saw how it would be in the first instance, and mentioned it to the Board. The Com-

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missioners regretted that they had not the power of avoiding this expense; when I sent over my bill of charges to the English solicitors here, I told them I felt it was more than I should wish incurred in so small a loan, but that they were aware what was done, and I directed them to deal with it as they thought proper, and that I should be quite content with any thing they thought fit to pay.

795. Did you feel yourself bound to go to that expense?—Yes; I had the Attorney-General's directions for every thing done.

796. You would not have done your duty to the Board without it?—No; and even acting as we did, a good deal was taken for granted which I would not in the case of individuals.

797. If it was for 500*l.*, you would go to the same expense?—No; we should lend it then on personal security, merely inquiring as to the solvency of the parties. The Board do not wish me to incur the expense of searches in loans of this kind.

798. If it had been 1,200*l.*, the same expense would have been incurred?—Yes, if the security was the same.

799. The expense would not have been greater, if it had been 10,000*l.*?—No; we lend, perhaps, thirty and forty thousand pounds where the expense does not amount to so much, and sometimes not to one-half.

800. With regard to the public bodies, what investigation of title do you require respecting them, or do you require any?—Public bodies who have the power generally, give the tolls and profits of the undertaking as part of their security, and they also covenant to convey afterwards the property when acquired, as in the instance of the Dublin Railway Company; a mortgage was granted upon their profits, and there is a covenant in that mortgage that they will, when they acquire the ground, convey it to the Board as further security. When I came to examine into the title of the Company to this ground, I did not go over the same ground as the Company did, but I was directed by the Attorney-General to see that they had proceeded according to the Act of Parliament, and that the directions of a counsel of some standing at the bar had been attended to.

801. Then you do not investigate the title, but see that the directions of the Act of Parliament are complied with?—Yes.

802. Is that the case with every public body you lend money to?—There are but two or three who have given us that additional security of land.

803. What has been the expense attendant on the security given by the Dublin and Kingstown Railroad Company?—One hundred and thirty or forty pounds, or thereabouts, as well as I recollect.

804. What was the advance?—Seventy-five thousand pounds. They have not yet conveyed to the Board the land, and that will require a further deed, at an additional small expense.

805. They purchased land from different proprietors, did they not?—Yes.

806. Did the Board require they should make a title to each of those different parcels?—No.

807. What security did you take from the Commissioners of Galway Harbour?—A mortgage of their tolls, and some small landed property which they acquired.

808. What was the expense attendant upon that?—I think it was between fifty and sixty pounds, and afterwards under twenty.

809. Under eighty pounds altogether?—Yes, as well as I recollect.

810. What was the advance?—Seventeen thousand pounds, as well as I recollect.

811. Has not considerable relief been given to the public in not requiring stamps to be taken?—Yes, very great; that is a very great inducement to parties to borrow.

812. Has not great relief also been given to the public in not requiring stamps on the presentments of grand juries?—That was not given by this Act; the late Loan Commissioners proceeded in a different manner in making loans to grand juries from what the Board of Works do. When the Board was first constituted, I drew, by their directions, a form of presentment upon which advances were to be made; this form was approved by the Attorney-General, was then printed, and has ever since been used. I am seldom applied to in loans of this kind.

813. Would it not be very encouraging to persons to borrow money, if you adopted the same form as to individuals and public bodies?—The same form could not be adopted in all cases; certain stipulations and certain covenants are necessary in some cases, which are not in others.

814. You

814. You say very few individuals borrow of the Board; do you find very few borrow small loans on their personal security?—Very few, I think.

815. Do you think Section 37 interposes certain difficulties to the borrowing of those small sums; for instance, it states that the whole principal sum should be repaid within five years from the advance; do you consider that an obstacle to the borrowing?—No, I never found that.

816. Do you think that a sufficient length of time for money to remain out?—I think it is on personal security, particularly as the Board do not incur the expense of searching to satisfy themselves of the security.

817. Has any plan ever occurred to you, whereby the expense now incurred might be saved to individuals and public bodies?—No, I was never desired to consider it till the Board the other day asked me the question, with reference to searches; they seemed to think we might make searches without paying register's fees; I did since inquire at the Register Office how they were paid, and the establishment, I was told, is paid out of the Treasury, and the surplus goes to the Crown.

818. Is there a surplus?—Yes, I imagine there is.

819. Do you think that would be advisable, or fair to the public?—Yes, I do; I think it would encourage persons to come forward and borrow of the Board.

820. Do you see any objection to making money borrowed under this Act the first charge upon the land?—I think it would be quite right to make it the first charge upon the particular property to be improved, but it would be hard if the security was also to be made a first charge upon that which, though forming part of the security, was not to be improved by the advance from the Board; I think it would be quite right to make it a first charge on the part to be improved.

821. Supposing both parts were comprised in the same estate, would not it then be right to give a first charge?—Then I think it would not be unreasonable.

822. Have the Commissioners shown any disposition to be rigid on the mortgagees, or have they not attempted to reduce the legal expenses?—They have done every thing in their power to reduce the expenses.

823. They have always acted liberally?—Yes, very much so with regard to the parties applying for loans.

824. Can you furnish to the Committee a return of all the payments which have been made to you as solicitor to the Board of Works, by parties applying for loans from the Board of Works?—I can.

825. Have you that in London?—I have not.

826. Have you any suggestions to offer by which the legal impediments which appear to exist in the way of private parties applying for loans might be removed?—I think the loan on personal security might be extended to 2,000*l.*, provided there was a sufficient number of solvent sureties proposed, and by having registry and other searches made at the instance of the Board's solicitor, without stamps or charges being made by the officers in whose offices those searches are made, and also by making the security to the Board a first charge, as already mentioned, would tend to reduce the expense considerably.

827. What steps have you taken with respect to the grand juries that are in arrear, as to the paying up the balances due to your Board?—There were none of them ever put into my hands, except one or two, and the treasurer immediately paid.

828. What steps are in progress now with other parties towards obliging them to pay up their balances?—I have been instructed to proceed only against one person over his estate; I obtained some time ago an order for a receiver; he has since obtained an order from the Treasury in his favour; I speak of the case of Mr. Cromelin, who has never paid any sum on account of the loan made to him by the Loan Commissioners.

Veneris, 10° *die Aprilis*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Charles Wye Williams, Esquire, called in; and Examined.

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829. ARE you a director of the Dublin Steam Packet Company?—I am a director and acting manager.

830. In that capacity have you had the opportunity of visiting Ireland and learning its capabilities with respect to inland communication?—I have to a considerable extent; perhaps more in a practical point of view than any other individual.

831. Have you, particularly with respect to the river Shannon?—Yes, I have the direction of a very large establishment on the river Shannon, and necessarily have given much consideration to the capabilities of that river for the purposes of commercial intercourse. The Company I represent have seven steam vessels and fifty barges of fifty tons average in their establishment on the river Shannon.

832. And to the communication between the Shannon and Dublin?—Yes.

833. I believe you were examined last year before the Shannon Committee?—I was at considerable length, principally on the details of improvement of which that river is susceptible.

834. Do you not find a great want of small harbours along both sides of the river?—There is a very great deficiency of small harbours, or almost any means of access for trading intercourse with the water. Roads in many situations run within a short distance of the water at places where great trading intercourse would prevail, yet the river is useless from the want of access to it, or any landing or shipping accommodation.

835. Would it not be of great service to the surrounding country if such small harbours and quays were erected?—Unquestionably, and I would state also that it is impossible, whatever the extent of navigation may be, that the country can have the benefit of it, without those aids to the navigation which small harbours, landing places and piers necessarily imply.

836. How does it happen that individuals do not upon their property erect these quays and harbours?—The individuals whose property lies upon the Shannon are in very few instances connected with the navigation in a commercial point of view, and there is no inducement for individuals to construct piers or harbours upon the navigation or opening them to the public, unless they had some means of remuneration whereby to reimburse themselves the expenditure, or be in some other way connected with or benefitted by the navigation. The improvement of the navigation and the construction of piers and small harbours must proceed concurrently.

837. Might they not have the power of raising tolls?—They could not have any power unless it was given them by some Act; some legal authority.

838. Would it be worth their while to obtain a private Act of Parliament for that purpose, having regard also to the quantity of tolls received and the necessary expense of repairing and keeping up these quays and harbours?—I do not think there is a situation on the Shannon where it is worth the while of the owner of the land to be at the expense of obtaining an Act of Parliament for the construction of a harbour or pier by which to enable him to levy tolls. I do not think the extent of the tolls would reimburse him, unless the navigation were so improved as to enable boats to ply with advantage. An individual upon his own ground may construct a harbour or pier, and he may exercise any power or authority as to its use, but that would be no benefit to the public; such piers or harbours would be merely for private accommodation, and as they would be always subject to the annoyance of having a right disputed of levying tolls, while he would have the expense of maintaining the work, no individuals would volunteer such.

839. How would you propose that those quays and harbours should be built?—I think that means might be intrusted to the Board of Public Works for facilitating the erection of piers, &c., and I took the liberty of suggesting, when the existing Act which constituted the Board of Public Works, the 1st & 2d of Will. 3. c. 33,

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was under consideration, a series of clauses which in my judgment, and I am satisfied, from the experience which I have had since, would have effected the erection of piers wherever there would have been found a necessity for them. My suggestions were to the effect of authorizing the Board of Public Works to advance for the erection of small piers, sums under 500*l.* with the power of levying tolls for the purpose of maintaining those piers, and for the use of them, which the public would enjoy, I proposed that the piers should be leased to individuals at a moderate rent; such a rent as would be no bar to individuals taking them. That those leases should be on the condition that the rent should amount to a charge equal to from three to five per cent. upon the money expended.

840. Were those lessees to receive any tolls?—Yes, but they should be bound to maintain the works in an efficient state, and pay the rent sufficient to remunerate Government for the advances made. That the Board of Public Works should be authorized to fix and regulate the amount of tolls or charges, in order to prevent the possibility of individuals levying more than the circumstances of the case or the extent of trade might justify.

841. Would you propose that those leases should be for a short term of years, and then that the work, whatever it might be, should again revert to Government through the Board of Public Works, to enable them to improve or enlarge them, and in order that the public should have the benefit of those piers and harbours, according to circumstances?—That is a part of the plan I suggest, and I am satisfied had that been done, and power given under the Act, there would have been at this moment a sufficient number of piers on that river. The best illustration I can give of the necessity of such a power is, that for want of those clauses, the Steam Company I represent have been obliged to expend considerable sums of money in the erection of such piers, without which business could not be carried on. The evil of which is, that instead of public piers they are necessarily private property, and the Company are the owners of them; we shall of course require such terms from the public as we think advisable. I think it would be more for the interest of the public if those piers were public property and a moderate rate of tolls established. The evil of the present system, or rather the want of encouragement to the erection of suitable public piers and harbours is, that individuals are driven to the necessity of establishing private accommodation and necessarily exclusive, where the public interests require public conveniences.

842. Why would you limit the outlay to 500*l.* from Government?—I should not think it proper, in consequence of the description of security which I suggest, namely, personal security, that it should be extended to large works, and for this reason—where the amount of the rent is small, personal security is perhaps the best security; better than land, because legal process connected with land is chargeable with a number of difficulties and circumstances which would render it impossible for the Board of Public Works to recover the rent with ease. The personal security of one, two or three solvent respectable persons would be the most available and the most general that perhaps could be obtained.

843. Do you think you could find a sufficient number of respectable individuals willing to enter into that security so as to answer the demand for quays and harbours on the Shannon?—I have no doubt a sufficient number of individuals would be found, because, wherever there is a necessity for such, that necessity would bring forward, as it were, the individuals competent and solvent for the consideration of the Board of Public Works.

844. Must there not be some outlay by the individuals themselves, or would the 500*l.* be sufficient?—The expenditure of 500*l.* or less on a harbour or pier would go a great way in the construction of a great number, perhaps three-fourths of all the harbours and small quays necessary for the navigation; but I would not limit myself to an expenditure of 500*l.* only on any one work; on the contrary, I would say, where the owner of an estate or persons connected with trade were willing to expend a certain sum of their own, say one-half the required outlay, in that case the amount of the rent chargeable should be diminished, as an inducement for the expenditure of capital by individuals; for instance, suppose 500*l.* was advanced by Government for a work which would require an expenditure of 1,000*l.*, and the individual applying for the loan expended 500*l.* of his own, I would, in that case, say the interest should be three per cent. instead of four or five.

845. How would they repay themselves for the outlay in that way if their leases were of short duration?—That would be a matter for the consideration of the persons applying for the loan of money.

 846. Might

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846. Might not, in that case, the tolls be high which they would require to be paid?—The fixing the amount of tolls should not be left to the option of individuals, as they would make the tolls as high as possible. The schedule of tolls should not be fixed except with the concurrence of the Public Board, so that there could be no possible inconvenience created to the public occasioned by improper charges for the enjoyment of the pier.

847. In the event of the Government and the individual each giving one-half, might they not have a joint interest in the tolls in proportion to their contributions?—Certainly such a provision might be beneficially arranged; but there should, in such cases, be a reciprocity, and Government should undertake to bear a portion of the loss, if any.

848. Is it not very desirable, in many cases, that the piers should be built susceptible of enlargement?—Certainly, a provision of that kind should form a part of the arrangement.

849. Is it not probable that enlargement would follow upon every one of them?—I think it is very likely the necessity for enlargement would follow as a consequence of increasing trade and intercourse.

850. Did it ever occur to you that it would be wise that the grand juries of the county should contribute one-half and the Government contribute the other half for the erection of these piers and harbours?—I think it would be injudicious to connect the grand juries with these works for a variety of reasons. The counties on the banks of the Shannon are extremely large, and it would be extremely injudicious to apply to the whole county for a portion of the contribution, because the great mass of the county would not have the advantage of the enjoyment of those piers. The advantage of the piers must necessarily be to a great extent local, though spread along the Shannon where there is such a deficiency of accommodation, and along its great length of 230 miles, or 460 of coast, as it were.

851. Would not the counties be much relieved in the way of roads by the general opening of the water carriage?—I have not a doubt of it; a good deal of the work which now goes upon the roads would go upon the water to the increased advantage of all parties.

852. Would it not be reasonable to give grand juries a power of preferring this water carriage as more accessible and a less onerous charge than the land carriage?—I have no doubt it would; but the question is, whether the grand jury would look at it in that point of view, brought together as they are from all parts of the country. I do not know one county on the Shannon where the grand jury would be likely to be unanimous in the advancing funds for what would appear to be a local or baronial advantage, although the benefit of the navigation would extend itself far into the interior of each county.

853. Would not that difficulty be got rid of by transferring it to the barony?—To a considerable extent, it would.

854. Would you recommend in that case that it should be so transferred?—Certainly, it would be advisable to give the baronies an interest in such works, and connect them with improvements of this kind.

855. You made an observation to the effect, that the water carriage would save the grand jury the expense of making roads; would that not involve the necessity of making roads to the piers built on the Shannon?—Admitting, from the situation of the Shannon, that it would be advisable to make roads in connexion with it, I cannot look upon it in a point of view as a necessary ingredient in the plan. I suggest the necessity for making roads in any direction is a matter of consideration for the grand jury. There are many instances where a very short road communicating between an extensive line of road and the Shannon would render a large district of country available to water communication. I know many instances of that kind, and where from want of an approach to the river, great facilities of trade and intercourse are unavailable and lost to the country.

856. Would it not in most instances be advisable that roads should be made connecting with the harbour and pier some other line or communication of road?—Certainly; the value of the harbour would only be produced by its connexion with the interior of the country.

857. How would you propose the roads to be made?—That portion of road incident to the use of the harbour might be connected with it, and the maintenance of that small portion might be part of the condition upon which the lessee of such harbour would take it.

558. Do you not in any instance propose that the lessee should expend any money

money of his own?—It might be advisable, as I have already stated, that the person who applies for the construction of the harbour should undertake to bear a portion of the expense, and as an inducement for him to do so, have proposed to lessen the rent charge.

859. Do you rely entirely on the rent to be received from the lessee as a security for the money expended by Government?—I do, and that rent should be equal to the charge of from three to five per cent. on the money expended, according to circumstances.

860. Do you think the resources of the country only want to be developed, and that they would present an ample security for the money to be so laid out?—Certainly. With respect to the necessity of the provision for making the piers and the power to levy tolls, I would mention the instance of Kilrush on the Lower Shannon. There is a small pier there, but there is no authority to levy tolls upon it, nor is there any individual charged with its maintenance; I allude to the pier in the inner harbour: the consequence is, that it is much exposed to injury and to be broken down; whereas, if there were any power to levy even an extremely moderate toll, it would be quite sufficient for its maintenance and almost constant repair.

861. Is there not a small toll now levied?—No; I am alluding to the old pier of Kilrush; it is a pier which is constructed of small materials, and when I was last there, it had received an injury from a vessel which 5*s.* would have repaired; it is very likely, however, inasmuch as there was nobody to expend 5*s.* on it, that the corner of the pier would come down, and in that case the entire mass would follow.

862. At whose expense was that pier built?—I really do not know.

863. Would you have these piers erected by the Board of Works, or by the lessees?—They should be erected upon a plan agreed upon by the Board of Works.

864. And under their direction?—Yes, and specification. I would leave to no individual the option of making piers on such plans as he thought proper; that part of the subject is, however, provided for by the present Act.

865. Where an individual was not called upon to advance the money, should you think it fair to the public that he should be enabled to derive an income at all from works of a public nature?—If he binds himself to pay the rent and maintain the work, he must have some means of remunerating himself.

866. Would you put up the lease to public competition?—Yes, at the expiration of the lease. There can be no likelihood of competition in the origin of the work. On application from an individual for the advance of a certain sum of money for the building of a work in any particular situation, the party applying should accompany the application with an undertaking to become the lessee, or procure one; not only is ample provision thus made for the useful investment of the money and construction of sufficient works, but a competent guarantee for the rent is at the same time supplied. I have no doubt the greater number of piers constructed would become a source of profit to the Board, were such advisable. They would have the power, at the expiration of the leases, of reletting them. There might be cases in which the situation of the pier might be such as not to induce persons afterwards to become the lessees, but those would be very few, and where they did occur, they would be amply compensated by the number of piers that would turn out to be profitable.

867. Then your object involves the idea that the proprietor should abandon all right to the soil after the expiration of the lease?—If he had not done it already as an inducement to draw the work to his neighbourhood, the person applying for the loan would of course require the Board of Public Works to appropriate the necessary land in the same manner as is at present provided for giving land for making a road.

868. Might it not happen that where the applicant was not the proprietor of the soil that the Board of Works, under the clauses which you propose, would have it in their power to give an income of perhaps 100*l.* a year to the party applying, while at the same time that person expended no money of his own upon the work?—The Board of Public Works would be the parties to protect the public; they have an interest in preventing individuals taking improper tolls, and it is their duty to take care that the amount of tolls levied be as nearly as possible sufficient to maintain the piers and enable the party to pay the rent. The case which has been put could only exist at the expiration of the term, the Board of Public Works would then have the enjoyment of the increased produce of the pier (supposing the pier to turn out profitable) on the reletting.

869. Would not the best test of the value of the pier be the amount which,

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upon public competition, was offered in the first instance as well as at the subsequent period?—I cannot understand the competition in the first instance at all; there might possibly be two applicants for the work, and if that was the case, then competition would arise, but were the amount of tolls found to increase, that would be the best proof of the value of the undertaking and the principal recommended.

870. If the application is to come in the first instance from individuals, what security is there that the quays and harbours shall be built in those places most convenient to the public?—The Board of Public Works would not consent to a loan unless they approved of the situation where the work was to be, and I conceive there would be an ample guarantee from this circumstance, that no individual making application to the Board would ask for a single shilling more than was absolutely necessary for the work, because he would thereby only involve himself in additional rent. Whenever a party conceived it desirable to place a harbour in a particular situation, whether he be the lord of the soil, merchant or other person, his interest would necessarily lead him to lay out the money to the greatest possible advantage, and to get the largest work and the greatest accommodation for the smallest advance, as the rent he would be charging himself with would be a rent commensurate with the expenditure. The leading feature of the plan I suggest is this, that while it would cause piers or harbours to be erected only in the most eligible situations, and where increasing intercourse would insure success, it would at the same time provide for the most judicious and most economical application of the funds advanced.

871. Would you require the execution of the works to be under the superintendence of the Board of Works' engineer, and the maintenance also under their control?—Yes, all should be done under their superintendence and control.

872. Is it not better that the works should be completed by the Board of Works, or leaving it to the discretion of the Board to say whether it should be done directly by themselves or by the individuals?—It is a matter of indifference by whom the work should be in fact executed.

873. Do you think the plan should be that of the Government engineer?—Nothing should be done except with the concurrence of the Board of Works through their engineer.

874. If I understand you rightly, your project is to this effect, that if the Steam Company Navigation wish to have a pier erected at a particular spot, you would give the Board of Works the power of taking the land from the proprietor and of leasing that pier out for a certain number of years?—Authority should be given for taking the land as is now provided for by the Act in the case of roads. Other persons besides the Steam Company would apply for the aid of piers. The owners of the land; the farmers, traders, &c. would be applicants for such aids to navigation, as they invariably increase the value of produce, as well as of land and houses, and improve all interests in the country.

875. Do you not conceive that such a power would be looked upon with great jealousy by the proprietors on the banks of the Shannon?—I would always give the proprietors of the estate priority; I would only allow the advance being made to an individual in the event of the landlord of the estate not being disposed to embark his money in the work or run the risk of its succeeding; I would always give him the option of doing it, or being the lessee in the first instance.

876. Then I understand from you, that if on an application being made by individuals to the Board, the Board approving of the plan, and the place where the quay and the harbour is to be erected, the Board would, in the first instance, give the option to the owner of the estate to perform the work?—Certainly; but in most cases the owner would most likely be the applicant.

877. And if not performed by him to the applicant?—Yes, to any applicant.

878. Would the erection of the pier under those circumstances involve the making of the road to approach to the pier?—It might or might not. The deficiencies of roads leading to the river, however, are very great.

879. Would you at the same time give to the Board the power of making roads contrary to the wishes of the proprietors?—If there was a necessity for such road, it would be a very insignificant one, being merely the connecting the next adjoining road to the water communication; but I would give the Board no new power as incidental to the working the clauses I would suggest as essential to the efficiency of the Act.

880. Suppose the next adjoining road should be several miles off?—Then there would be no application, for no man would apply for the construction of a small

pier

pier when there was no road to it; that would be a question for the consideration of the grand jury in the ordinary way, and whether the road there would be advisable or not.

881. What objection do you see in empowering the Board to construct piers with the consent of the proprietors, and then to lease them by public competition in the first instance?—I see no objection whatever; it would be a most desirable mode of proceeding. I apprehend that the Board of Public Works have no authority to initiate a measure of that kind; if a power of that kind were given to the Board, it would be highly advisable, though it would not supersede the necessity of the plan originally suggested.

882. Do you see any objection to such a plan?—Certainly not; I think it most advisable. By the plan I suggest, however, there would be no applications for a pier unless where there was a manifest necessity for it, and the likelihood of sufficient trade to pay the rent and provide for its maintenance. No man would be fool enough to apply for a loan and make himself chargeable with the rent, unless he saw a reasonable ground for remuneration by trading intercourse.

883. In all those cases you propose the land to be vested in the Board of Public Works?—The whole work to be vested in the Board of Public Works; the land would be the mere spot on which the work would stand.

884. And compensation given to the proprietors of the land?—I would leave that to be done in the way in which ground for roads is taken. I would not interfere or introduce any new measure for compensation.

885. Are you aware of any individuals or public bodies that would immediately undertake the erection of such harbours and piers?—I am.

886. To any extent?—Wherever there was a likelihood of increasing trade there would be most likely applications for works of that kind.

887. Would your own Company undertake the erection of such piers and harbours?—They certainly would be applicants in a variety of instances for the erection of piers, and I have no doubt a sufficient number of persons would be found to become lessees, but one part of my plan is, that the applicants should be bound to procure lessees, or become so themselves. They have been obliged in three or four instances to purchase land and make private piers of their own, which I consider extremely injurious to encourage, inasmuch as they have thus the absolute right to them, and I think it would be more advantageous if they belonged to the public.

888. Has the erection of those piers realized your expectation as a mercantile speculation?—They are now only in the course of construction. I certainly would not have advised the expenditure, inasmuch as it was made upon my recommendation, had I not a strong conviction that they would repay the outlay. The return, however, expected is not in the way of tolls, but of an increased traffic to the boats of their establishment, and by which the country will be benefitted as well as the Company.

889. Do you think there is a reasonable promise of a return?—Yes, in the way I have mentioned, not in the way of pecuniary returns from tolls.

890. Where are those piers?—We have three on Loch Derrig, one in a place called Cow Island, now called Williamstown; the second at Garrakennedy; the third is at Turryglass.

891. What is the average cost of erecting those piers?—From 100*l.* to 500*l.* We have also on the Lower Shannon, or rather are about constructing one at Tarbert that will cost little short of 1,500*l.* I would much rather it should be a public one, but if we are obliged to make a pier at such a cost, it is unreasonable to suppose that we should make that for public convenience alone.

892. Would it not be inconvenient to limit the advance to the sum of 500*l.* on small piers?—It would be inconvenient, provided the Government was likely to accede to making grants on personal security to a larger amount. I limit the advance to 500*l.*, because it would be easier than to find tenants for small works, and to secure the amount of the rent reserved; but there would be great difficulty in getting tenants for works for a large amount, and which the Board of Public Works would approve of.

893. Have any of the landed proprietors made any difficulty to your building harbours?—None at all; in many cases they would make them themselves had they the means. I have had a great many applications from individuals holding land on the Shannon, entreating us to go there and erect piers or harbours.

894. Do you consider they willingly lent their consent to it?—I do.

 895. Without

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895. Without specifying any payment for the ground?—Yes; in many instances they would give the land as an inducement.

896. Have they given you considerable facilities in obtaining the materials also?—The materials are very plentiful every where.

897. Do you contemplate charging the public who use those piers with tolls?—We intended to levy tolls, but it is most likely the boats that come into those piers would be our own; where strangers come in we do charge a small toll.

898. Does all this apply to the Shannon?—The suggestions I make to the Committee apply to all the navigations in Ireland, and even to the coast.

899. Have you supplied any thing for the convenience of the persons resorting there, in the way of machinery?—We generally supply a crane.

900. Is there any extra charge to the persons who use that crane?—No, there is not; we have not made any charge for the use of our cranes.

901. In the case of those small piers, the expenditure of which is to be much below 500*l.*, the levying of tolls will require a toll receiver constantly resident there, which will be a considerable expense, besides the annual repairs?—Yes, but that will be done by the lessee, that is a matter for his consideration before he enters on the undertaking.

902. Will not that deter individuals from coming forward and applying for a grant for the purpose of erecting those piers?—I do not think the consideration of the expense of levying tolls will be sufficient to deter persons from coming forward and making application.

903. Will it not require such a toll as will raise the charge to the public much beyond the comparative value of the work?—There will be no pier without the necessity for that consideration on the part of the applicant; if the expected return from the work, either in the way of tolls or otherwise, be not sufficient to induce application for piers, the result will be that none will be erected.

904. Suppose a pier to be erected at the expense of 500*l.*, and 25*l.* a year would be the amount of the sum to indemnify the public for their outlay, the expense of collecting may amount to 20*l.* a year more, so that in point of fact 45*l.* will be levied upon the public to obtain an object which is caused by a revenue of 25*l.* a year?—That is the fact; but before an individual will make any application, he will take all that into consideration. I would, however, rather put it this way, that whereas 45*l.* must be received before the lessee would be remunerated, he must consider whether there would be sufficient trade and intercourse to repay him. It is not a question of grievance to the public, but of risk to the adventurer.

905. And such question has reference to the interest of the public?—The interest of the public is advanced, inasmuch as there would be a pier where before none existed.

906. Do you think it would be better for the public if only 25*l.* was levied in repayment of the money expended upon the pier?—No doubt; but with great respect I would suggest, that the object is to supply the deficiency of piers along this and all other navigations in Ireland where none exist, and upon the most economical terms, and without calling upon Government to give any thing; I might say upon terms that would really make it a beneficial project for Government. The terms I propose for adoption would enable the country to have an increasing accommodation of this description in all stations where now there is a deficiency; at the same time Government would be called upon to assist in doing this, they will not be called on to grant any thing for the expense, and the public will have advantages which they now want. The Board of Public Works have been in existence for some years, yet not a single application has been made for those piers, without which the navigation is useless; and not one has been erected on that 240 miles of double coast except what has been done by our Company out of their own funds. Five hundred thousand pounds has been granted for the purpose of Public Works and aids to the navigation, which were particularly intended should be supplied, yet not a single one has been constructed any where under the terms of the Act; and yet the whole of the 500,000*l.* is appropriated, and these most essential aids to intercourse, by which the population would be employed and trade and industry promoted, are yet unsupplied, and the clauses in the Act referable to them have remained a dead letter.

907. Do you consider the Act generally as very destructive of its own object?—Decidedly so.

908. Have you examined this Act passed in 1831, called the Public Works Act?—Yes.

909. Does

909. Does that Act, in your opinion, require amendment?—I think it requires amendment in many particulars.

910. State some of those particulars?—I think the great disease of the Act is, in the first place, that it lays too much obligation on the Board of Public Works as to the question of securities; it requires several descriptions of security which are not to be met with in Ireland, or at least are not available except at great inconvenience and great sacrifice on the part of individuals; I think there is not a sufficient discretion left to the Board of Public Works in recommending or selecting works, and with reference to their likelihood of satisfying the objects contemplated or intended by the Act. The whole consideration seems to be as to the security, the Board of Public Works have not the power of assenting to a loan of money, whatever their views of the necessity or value of the work may be as a means of promoting industry or trade, or relieving the great want of employment in Ireland. With respect to the application of small grants and loans, which in my judgment is of more importance, considering the state of Ireland, than large ones, towards those I think the Act is extremely defective. There are a number of clauses in the Act with respect to small loans, which from the particular manner in which they are framed have become wholly inoperative. There are also some clauses with reference to certain descriptions of security, which, from the manner the clauses are encumbered, have been equally inoperative; on the whole, I am quite prepared to say that it requires revision in many important particulars.

911. How is the Act inoperative as to the small grants?—From the manner in which the clauses are encumbered by the condition as to securities. I took the liberty of suggesting a variety of clauses, many of which have been introduced into the Act, but in such a form as to render them unavailable. Among other clauses I suggested, were some with respect to personal security being received, but they have been introduced with additions which have rendered them unavailable, and there has not been a single shilling advanced or applied for under them.

912. Have you got the clauses you proposed?—I have not them at present, but among them were the clauses 36 and 37, but there has been attached to those clauses the condition of repayment in five years, with interest at five per cent. No individual would ask for a loan upon personal security, rendering himself liable under a recognizance to the Crown, the most awful of all responsibilities, and with the knowledge of being liable to be called upon at the end of five years to repay it with interest at five per cent. The money could be had on much better terms any where else.

913. What time would you propose to be given for the repayment of the money?—That would entirely depend upon the nature of the work.

914. Then would you leave it to the discretion of the Board of Public Works?—Within certain limitations.

915. What limitation would it be?—I could lay down no general law; I should say it should be from ten to twenty years. The present Act contemplates repayment in twenty-five years, but when so heavy an interest is required at five per cent., no instalments of the principal should be required.

916. Would you extend it as far as twenty-five years?—I would not suggest the repayments of small loans being postponed for so long a period.

917. Are you not aware there is a power given by the Act to enlarge the time, if the Board thinks proper?—That is not with respect to these clauses. The Board have a discretionary power to enlarge the time of payment in certain cases.

918. But have they any discretionary power as to the rate of interest?—They have not, and this I consider a great defect of the Act.

919. So that an individual who could borrow money at four per cent. could not obtain a loan under this Act at less than five per cent.?—He could not, unless he had the means of offering such securities as were not likely to be offered for small loans.

920. What rate of interest do you think reasonable for the public benefit?—I think the rate of interest ought to depend, to a certain extent, upon the contingency of the party advancing money of his own; from three to five per cent. is the limitation I would state.

921. Is there any risk to the public in lending the money at the same rate of interest as Exchequer Bills bear?—There would be no risk; on the contrary, the lower the rate of interest the more secure would be the repayment.

922. Would you lower the rate of interest not only on the loans for which security is given on landed property but also on personal security?—I would not lower the rate of interest on advances given on personal security alone; where the

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whole money was advanced by Government, I think in that case the individual should be called upon to pay five per cent., because I think it is a fair consideration as the public advances the whole of the money; in this case, however, I do not contemplate a refunding of the principal, unless at the desire of the borrower, to discharge himself from so heavy a rate.

923. Do you think it would attain the object of the Act, which is the benefit of the public, by charging an individual five per cent. when the Government has it at three?—I think it might; the question of difference of interest would not be one of increased accommodation to the public, but of consideration by the applicant; the Government must, however, not overlook the risk of the loan, and which alone is the ingredient which would justify asking a higher rate than Government themselves pay.

924. Do you not think it would diminish the applications of private individuals giving personal security at a high rate of interest?—Certainly; and to lower the rate of interest would be to encourage applications, and *vice versâ*.

925. Do you conceive it would be a fair mode of dealing with those individuals, and tend to the benefit of the country, Government getting the money at three per cent. and lending it to the individuals at five?—I think the rate of interest, generally speaking, is too high, and particularly as it is higher with respect to Irish loans than in England or Scotland; for small loans, however, on personal security, such as I have been speaking of, Government would be justified in asking a higher rate of interest than they pay.

926. Is the personal security of so high a character?—The value of personal security in this case would depend upon the amount required; I consider a number of individuals for small amounts a good security; but I do not consider personal security sufficient of itself for Government where the amount is a large one.

927. Supposing you extend the time at which the parties should be called upon to pay that money?—The extent of time would rather tend to deteriorate the security.

928. You mean individual security?—Yes.

929. You have limited the personal security to 500*l.*?—Yes; but I have mentioned a class of cases where 1,000*l.* might be expended, the applicant advancing one-half of the money; there I think the interest should not be five per cent.

930. In all cases where the applicant undertakes to lay out any particular sum, do you there consider three per cent. sufficient, supposing the application was for 500*l.*, the applicant stating he was willing to expend 500*l.* of his own money?—I consider the rate of interest should be as low as possible to induce parties to expend money of their own; certainly not higher than three per cent.

931. Do you think three per cent. would be proper under those circumstances?—Yes; but I would wish to have it lower if possible; the expenditure by an individual on a work thereafter to become a public work is of itself such a contribution to the Government and the public service as to entitle him to the most favourable terms.

932. What security would you require in that case, where the moiety should be expended by the applicant?—I answer, personal security alone; the Board would take care only to grant one-half, upon the condition of the other half being expended as they now do.

933. Is your reason for thinking that an individual ought to be charged with a higher interest than a public body, that the security of the individual is less than that of the public body?—Yes; but public bodies cannot give personal security.

934. Individual security you mean?—Yes.

935. If the individual security be as good as what you call the corporate security, should you think the interest ought to be only three per cent.?—Decidedly.

936. Can you not conceive cases where individual security would be as good as corporate security?—Yes.

937. Would you not leave a discretion in the Board to determine whether in certain individual cases, the rate of interest ought to be three per cent.?—I think it would be a very invidious discretion to leave with the Board, to let the rate of interest be decided by their opinion of the solvency of individuals.

938. Do you not leave a discretion in the Board to determine, whether they would lend the money or not?—Yes.

939. If the loan then itself is matter of discretion, why not leave the consequence of the loan, namely the interest, also as a matter of discretion?—I cannot conceive the rejection of applications for loans is as invidious as making a difference in the rate of interest upon a consideration of the value of the personal security.

940. Do

940. Do your remarks apply to the case of two or three persons of considerable personal security being joined in the bond?—I apply it to all such cases.

941. Will you have the goodness to state to the Committee your opinion as to the means of communication which the country has at this moment with the Shannon? Is it sufficient for the purposes of public utility?—The want of communication between the navigation and the interior of the country is manifest to an extraordinary extent. Except at the bridges, there are very few communications with the river on the western side of the Shannon.

942. Is not that position very remarkably elucidated by the condition of that part of the country, Clare and Galway, which adjoins the western bank of the Shannon?—It is, but not more so than on the Upper Shannon. I take the west side of Lough Derg, which may be said to embrace a coast of perhaps 40 miles; I do not think there is a single pier or place of trade or communication with the water in that distance; I do not know one, except one we made ourselves. In all those extensive bays and rivers which form so remarkable a feature in Lough Derg, they are all deficient in that respect.

943. In addition to the roads which you think will be necessary for the purpose of communication, would you not also propose a communication by means of canals and the tributary streams?—Certainly. There is a great capability on the banks of the Shannon for 200 miles of continuous navigation, and also by means of tributary streams, and they are all unemployed.

944. Are they all capable of improvement?—More or less so; several of them at a small expenditure might become the means of introducing water conveyance for many miles into the interior.

945. Will you name those tributary streams, the principal ones?—The Fergus is a very remarkable instance; the river Suck is another; the branch to Seariff, the Rossmore river, the Brusna to Parsonstown, the Cloonastra, the Inney, the Camlin, the Deel to Askeaton, the Maigue to Adaire. There is also the great navigation leading to Boyle, and many others. This latter is a very remarkable one, where I believe an extension of 40 miles of inland navigation might be effected at the expense of a very few thousand pounds.

946. Will you name the communications that can be made with advantage by canals?—There is one might be made with great advantage from the town of Roscommon to the water. I cannot name the places where canals are desirable, they are numerous.

947. Are there not two canals at present communicating with the Shannon?—There are those leading to Dublin.

948. Would you recommend the extension of those canals, or either of them?—I would not recommend the extension of the Grand Canal farther north; it already reaches Ballisnaloe; but the navigation by the river Suck, which runs parallel with it, might, at a much less expense, be carried to a greater extent into the county of Roscommon.

949. To what extent could the navigation of the river Suck be carried?—Mr. Rhodes has ably surveyed and estimated this extraordinary river, and has proved that at a moderate expense it might be carried 25 miles up the Shannon, towards Roscommon, for the sum of 35,000*l.*

950. That merely extends to one part of the country; would it not be desirable that the Grand Canal should extend to other parts, to Galway?—Certainly, and the further they go the more useful they are in every respect; the Grand Canal might be extended from Ballisnaloe to Loughrea with great advantage.

951. When you said you would not recommend the extension of the Grand Canal, you alluded to the expenditure for making that canal being so much greater than would be required for making the river navigable?—I prefer making the river navigable; but in my opinion it would be desirable that the canal should be extended. I prefer, however, making rivers navigable where the expense is not great, and the rivers are of sufficient size to admit of steam navigation.

952. Has your attention ever been directed to the subject of tolls?—Upon that subject I would beg leave to refer to my evidence before the Select Committee upon the Shannon navigation.

953. What powers do you propose to give to the Board of Public Works for the purpose of making these tributary streams navigable?—I would recommend the giving the Board of Public Works the discretion to initiate works of this kind; the parties there could do nothing of themselves, it must be done by Government, or with their aid.

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954. Do you think the tributary streams of the Shannon of sufficient importance to be included in any general measure to be brought forward for the purpose of the improvement of the river itself?—Unquestionably so, I consider it one of the most important features of improvement. The tributary rivers falling into the Shannon might be made to embrace an extension of intercourse of the most valuable character for more than 100 miles, independently of the great stream of the Shannon itself, which is 237 miles long.

955. How would you propose the money to be raised for that purpose?—As far as it was possible it would be advisable to induce grand juries to aid in these important works. I think in all cases Government should contribute, and at least grant a large portion of the funds; whether the remainder should be leviable by the grand jury on the baronies or counties at large, must be a subject of consideration hereafter.

956. You are favourable in all cases to the greatest encouragement being given to individual enterprise?—I am satisfied that what emanates from individual enterprise is more likely to be attended with a successful result in a commercial point of view; but in works of such magnitude, and which should be carried on simultaneously and on a combined and well-digested plan, individual enterprise or capital can effect nothing.

957. Are you perfectly convinced, from your knowledge of the Shannon and the tributary streams, that the improvement of the river and those tributary streams is not a fit subject for individual enterprise?—It is impossible any individual enterprise can be productive of any thing but very partial advantage. The object is so extended, and the work is of such magnitude, that it is quite out of the question to suppose individual enterprise will be available.

958. You propose that the money necessary for that purpose should be contributed partly by Government and partly by the grand juries or baronies?—I do.

959. Would you charge a portion of the expenditure on the tolls that might arise on the river?—The question of tolls for river navigation is a very important one. The reason I should recommend that Government be called upon to advance money in aid of such is, that the navigation should become a cheap one. If the traffic was subjected to a heavy toll, it would defeat its own object. The effect of making it a dear navigation instead of a cheap one would entirely defeat the great object which Government should keep in view, namely, the increasing internal intercourse by water, and in which Ireland is so lamentably deficient.

960. With a view to the proper maintenance of the navigation, would it not be desirable that a power should be given of raising tolls upon the line?—I think it would be injudicious not to authorize the Board of Works to collect a toll, but it should be merely for the purpose of maintenance.

961. Then in the course of a certain number of years is it not more than probable that those tolls would go a certain way towards repaying the expenditure upon the navigation?—The expenditure would be so large upon the main trunk of the river that I am afraid no tolls would ever be sufficient to remunerate Government for the advance. The great object of Government being the improving the condition of the population, they should rather look for a return of the principal in the increase of revenue arising out of the moral elevation of society, and improved habits of the population.

962. Do you not think after a period of 25 years, that the traffic would be much increased?—It would certainly and in a much less time; but I think it would be very injudicious to adopt any measure that would make it an expensive navigation.

963. You think that would crush the trade in the bud?—Yes, it would prevent the trade ever being formed, and by checking intercourse would necessarily check the progress of those ameliorations which follow so invariably.

964. If there was a toll, to what object would you apply the toll?—To the maintenance of the work alone.

965. You would confine the toll to the expenditure necessary for the maintenance of the work?—Yes.

966. Has any instance fallen under your observation, in which a great return has arisen from the expenditure of money upon public works?—Yes, in consequence of the money expended by Government in the western and southern districts; in the course of seven years on roads the annual increase in the customs has been more than equal to the entire expenditure, which was about 170,000 *l.*

Lunæ, 13° *die Aprilis*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Charles Wye Williams, Esquire, called in; and further Examined.

C. W. Williams, Esq.

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967. HAVE you condensed your ideas respecting the erection of small harbours and piers?—I have, and the suggestions I would make are to the following effect:—

That the Board of Public Works be empowered to advance, by way of loan, any sum not exceeding 500*l.* for any pier, harbour or approach to the same, or other work intended to facilitate inland navigation, provided that such pier, harbour or other work shall be thenceforward considered a public work, and be open to the public on such terms as the Act should direct.

That when the proprietors of the soil or other person or body make application for the advance of money for the construction of any such work, the Board shall not accede to the same unless on the undertaking or tender of one or more solvent and approved persons to become tenants or lessees of such work on terms as hereafter.

That where the applicants for such advance undertake to expend of their own proper monies a sum equal in amount to that to be advanced by the Board, in that case the reserved rent payable by such lessee to Government to be a sum equal in amount to a charge of three per cent. on the moiety so lent or advanced by the Board.

That where the entire sum necessary for the construction of such work shall be advanced by the Board, in that case the reserved rent to be in amount equal to a charge of four or five per cent. on the sum so advanced, according to circumstances, giving a discretion to the Board, on view of the importance of the work.

That the conditions of the lease so to be granted under the authority of the Board shall be, that the lessee maintain such work, during the term of the lease, in a satisfactory state of repair, the operation or injuries arising from floods or storms excepted; and that he be empowered to levy and receive certain tonnage or other rates on such boats as should avail themselves of its aid in return for the enjoyment of such work by the public, and for the maintenance of the same; the Schedule of rates to be approved of by the Board and published.

That leases for such works be for terms of not less than five nor more than ten years.

That on the expiration of the term agreed on, the Board of Public Works be empowered to re-let the tolls by public bidding (or other public mode), due regard being had to the solvency of the parties and other circumstances, giving priority alone to the original proposers or lessees; and that the Board be also empowered to vary the Schedule of tolls on any such re-letting.

That the Board shall determine under what rules and regulations the lessees shall occupy and enjoy, or the public have the use of such work, pier or harbour, &c.

That power and authority be given to enforce the payment of such tolls or rates, and to protect such work from trespass and abuse.

That where the establishing or maintaining any beacons or buoys, the dredging or keeping open any passage or approach to the same, or any other aids to the navigation may be essential, the Board be authorized to embrace such necessary objects in the condition of the lease.

968. Would you give power to the Board of Public Works to initiate any and what works in Ireland?—I think it would be extremely advisable that the Board of Public Works should be empowered to initiate measures tending to increase inland intercourse, either by land or water, I mean such as come within the class of what may be called small works. I would not give them the power of initiating large works, but for anything under 1,000*l.* it would be very desirable the Board should have that power. They have now no discretion whatever.

969. What description of works do you allude to?—Short lines of road leading to navigations; improvement of navigations and construction of small piers and harbours, and the general class of works that would improve the intercourse of

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the interior and develope its resources, thus creating new sources of industry and employment.

970. Would you limit their power to any specific sum?—I would limit their power, because I think it would be wrong to give them the power of initiating such measures as might involve large expenditures, under the strong conviction that it is not by such, but by multiplying the numerous aids to intercourse and interchange of commodities, and which come within the scope of small expenditures, that the country is to be benefited.

971. How do you propose that the money should be provided for the expenditure of works so to be commenced by the Board of Public Works?—I think, on the announcement of such measures being in contemplation, and the Board of Works taking measures to give publicity to them, there would be qualified persons in abundance ready to undertake those works upon such terms as the Board or a new Act might point out.

972. What do you mean by the Board of Public Works initiating them?—By authorizing their surveyor or county surveyors to suggest and examine situations where such works might be desirable; to prepare the necessary surveys; to relieve individuals from that great expense; providing for permission to enter lands for the purpose of making those surveys, and obtaining the necessary land in the same way as is now provided for in cases of roads, and also for making plans and estimates, and to show to the Board the facilities with which these works might be accomplished and the effects that would follow. I know several works now in progress, which, if such power had been vested in the Board, would have originated with them. By their not having this power, it devolved upon individuals to make those works for their own convenience, and the consequence is, that those works became private instead of public property.

973. Are there many works for the want of such a power that have not been undertaken at all?—There are a very great number, and without them it is impossible inland intercourse can prosper or indeed exist. What use can a navigation be without approaches and landing places?

974. Would you give grand juries the power of raising money for the purposes of any of those works to which you have now alluded?—It might be advisable that the Board of Public Works, upon the recommendation of their engineer, and with the consent of the Treasury, should make it compulsory upon grand juries to advance a certain portion of the necessary expense; but inasmuch as the advantages derivable from those small works would be necessarily local, the great body of the county represented by the grand jury would not be disposed to promote the work, and this is the reason why grand juries are bodies ill constituted and unlikely to initiate valuable small works or aids to intercourse.

975. What portion would you say grand juries might be required to supply?—That to a great extent would depend upon the nature of the work. I would not like to name any portion; I am alluding to the class of small works, and where individuals may supply a part of the expense.

976. Would not grand juries object to such a compulsory power?—Some might object, but as the works are of the class in which but a small expenditure would be necessary, if the grand juries could have the power of throwing the expense upon those baronies which would be most interested in their erection, I think there would be no great difficulty in inducing them to consent.

977. Would you in any case give compulsory power where Government did not advance one half the expense?—No, I would not.

978. And would you not add where an individual gives something less?—I think that might be left to the discretion of the Board of Public Works; where an individual would be very much benefited by it, I think it fair that the grand jury and Board of Public Works should call upon the individual to bear a portion of the expense, or make that a part of the condition on which they would proceed with the particular work in which they should take the initiative. With respect to the class of works that I have alluded to, I would observe that roads, and even mail-coach roads, often run within a short distance of navigations, yet are wholly inaccessible to them. Districts of twenty or thirty miles are frequently met without any landing place or shipping accommodation of any kind; and Mr. Nimmo, in his evidence before the Lords' Committee of 1824, observes: "The Shannon has been made navigable into Lough Allen, but it is remarkable that upon the western coast of the broad parts of the Shannon we have not a single landing place." I find that from the sea to Lough Allen there are not more than eight available landing

landing or shipping places in connexion with lines of roads, although I estimate it to be equal to a coast of 469 miles, viz. *C. W. Williams, Esq.*

	Distances in Miles by Water.	Length of Coast in Miles.
The Sea to Limerick.—Without any pier, harbour or convenience for shipping, or landing goods, except one at Kilrush, and one at Clare	60	150
Killaloe to Portumna, through Lough Derg.—This distance includes several deep bays stretching many miles inland, yet without a single public shipping quay	24	90
Portumna to Banagher.—At Portumna Bridge there are two small harbours belonging to the Grand Canal Company, for the use of which a heavy toll and wharfage is payable; no harbour or landing-place, or even approach to the river between these towns	12	24
Shannon Bridge to Athlone.—No harbour, landing-place or approach to the river between these towns	18	36
Athlone to Lanesboro, through Lough Rea.—This distance comprises many deep bays and inlets, and a very extended coast, and several tributary rivers running into the same, but without a single harbour or trading convenience, or even approach to the river	21	55
Lanesboro to Rooskey.—With the exception of the Royal Canal Harbour at Tarmonbarry, where however tolls and wharfage are payable, the same deficiency of trading accommodation or approaches to the river exists	17	34
Rooskey to Drumsna.—This distance embraces several small lakes and bays, but all wholly destitute of trading accommodation	10	30
Leitrim to Head of Lough Allen.—Several miles of this distance is not navigable by the river; a canal and locks however have been constructed by the Government Board of Inland Navigation, but which for many years have remained in an imperfect and dilapidated state. The entire distance is without any landing-places or trading accommodation	20	50
		469

This enumeration is quite sufficient to prove the necessity for Public Works on this navigation. This was not unknown to Government, as the works on this river have been under the immediate direction of a public Board for the last 30 years. Yet the Act constituting the New Board of Commissioners has been formed without any regard to the state of this river, or even the maintenance of the Public Works on the same, and in their own hands.

979. Would you add any thing to what you said the other day about the tributaries of the Shannon?—I would observe, it would be impossible to detail the numerous situations where advantage may be taken of the deep water bays and rivers connected with the Shannon. Both are to be met with in great numbers and possessing extraordinary capabilities. I already mentioned the river Fergus to Ennis and Clare; the river Deel to Askeaton; the river Maigue to Adaire; the branch of the Shannon to Scariff; the Rossmore river, leading to Woodford, in Galway; the Brusna to Parsons town; the river Suck, in the county of Roscommon; the Cloonastra; the Inny, to Ballymahon; the Camlin, to Longford; and the lakes and river towards Boyle.

980. You have not included the Carnadoe in your enumeration?—I have not; but I consider that as connected with a large bay on the western side of the Shannon; Mr. Rhodes did not survey that river.

981. You have not noticed the canal communications, which might be made with the Shannon?—I have not, because they are so numerous; but I may mention a few: one from the town of Roscommon to the Shannon; one from Lough Rea, to the town of Ballinasloe; one from Ennis to Clare; one from Ballymahon, to the river Inny; one from Nenagh to the Shannon.

982–3. Would not such undertakings be of great benefit upon the general principle in all navigations?—Pushing into the interior of a country, would always be beneficial on principle; and I am satisfied it would be so in the cases enumerated.

984. Are you acquainted with Lough Gara and Lough Mask?—I am not. There has been a line of navigation surveyed and recommended in that direction; also a branch from the Grand Canal, at Ballinasloe, to Lough Rea; but that was not connected with the navigation of the Shannon.

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985. When you talked of the erection of small harbours and piers, did you confine it to rivers or extend it to lakes?—Nothing would be more judicious than connecting the lakes in the western district, and bringing them also into connection with the Shannon.

986. How is that to be done, except by means of a canal?—It can only be done by means of short lateral canals, and by improving the rivers that connect those lakes.

987. Then you would erect small piers and harbours on the borders of the lakes as well as upon the banks of the river?—On all navigations, whether canal or river, or lough, without those aids to navigation, I conceive, and I can speak from experience, it is impossible to carry on a useful intercourse with the interior, or to render those or any other navigations available.

988. Have you examined the Public Works' Act in reference to the power thereby given to the Board of Public Works to advance money for the purpose of drainage, and the improvement of lands?—I have; and I think that that Act is susceptible of great improvement; at present it appears to me that the clauses which have reference to the drainage of lands have been wholly inoperative; and I am disposed to think that that is attributable to the severe terms which those clauses contain. One condition, which I would suggest to be altered, is that which involves the repayment of the advances in the short space of three years, a period quite insufficient to render the drained land profitable. There is also a necessity imposed by the Act for payment of interest at the rate of five per cent.; terms which I conceive too onerous to induce any individual to apply to the Board of Public Works for a loan for such purposes.

989. What alterations would you therefore propose to be made in the Act?—I would extend the term of repayment: at the same time, I would suggest that when so high an interest as five per cent. is exacted, while Government are borrowing at three per cent.; as long as that interest is paid, no instalment on the part of the principal should be exacted.

990. Would no part of the five per cent. be applied by you in liquidating the sum originally borrowed?—I think five per cent. may be fairly considered as involving both interest and repayment of principal. I would consider it in the proportions of three per cent. for interest, and three per cent. as a sinking fund for repayment of the principal. These are the terms on which the money for the improvement of Leith harbour has been borrowed.

991. Would you consider that five per cent. in the shape of a short annuity, and only payable for a certain time, or payable until the whole principal is liquidated by means of the sinking fund?—It would be necessary that the whole principal should be liquidated unquestionably, but I think that five per cent. would be sufficient, considering it on the foot of a liquidation of the whole; and it must not be forgotten that Government would derive great benefit, and reap an abundant pecuniary return in the improvement of the revenue, by the increase of intercourse and trading.

992. Are there not certain works under the control of the Board of Public Works in Ireland?—A large portion of the river Shannon is at present vested in Government and under the management of the Board of Public Works. No provision was introduced into their Act authorizing any expenditure for maintaining those works; the result is, that they necessarily remain in a continued state of dilapidation: the locks decaying, the canals filling up, the fords impassable, and the whole of this important part of the river reflecting great discredit on Government, and this while the navigations in Canada are perfected and maintained at an enormous cost.

993. Are there no other works also under their control?—There are other works in the north of Ireland, but what state of repair they are in I am not prepared to say.

994. How many miles of the Shannon are so under their care?—All the Shannon above Athlone, embracing a continuous navigation of at least sixty-two miles to Lough Allen. The whole of Lough Rea, Lough Derg, and the other lakes are also under them, as also the navigation of the Maigue to Adaire, on the lower Shannon.

995. In your opinion, means ought to be afforded them to keep up those works?—I do, otherwise there can be no means of rendering that navigation available, inasmuch as private companies could not be established for the improvement of the navigation, which was in the possession of Government; and it should be observed, that those sixty-two miles may be considered as the most important portion

portion of the river Shannon, running through a very fine country without any other outlet to the sea, and running, as the river does, through the centre of Ireland.

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996. Do you think, that under the existing provisions of the Act, considerable difficulty of a legal kind has been experienced by parties applying for loans?—The principal legal difficulty arises out of the necessity of conforming to the condition of the Act as to securities; the difficulty of finding that description of security which the Board of Public Works are alone authorized to take.

997. What alteration can you suggest?—A modification of the class of securities. I would suggest that there be introduced into any amendment of the Act a Schedule embracing forms of proceeding, forms of mortgage and other securities, to prevent the heavy expenditure of law costs, which are now required though not necessary, and which have been a source of considerable complaint upon the part of many individuals.

998. Must it not be necessary to have some special covenant or contract?—All that may be introduced into the Act by way of Schedule, as is the case in many Acts.

999. Can you provide for every case, do you think?—Where any special case may arise that may require any special provision, that may be introduced into the agreement.

1000. When public bodies mortgage their tolls, the work being partially finished, might it not be necessary to introduce a specific provision into the mortgage deed which had reference merely to that particular work?—That I believe is already provided in the Act.

1001. Has not a large sum of money been advanced to the Ulster Canal Company?—I understand that 120,000*l.* is to be advanced.

1002. By whom?—By Government.

1003. At what rate of interest?—At a rate much less than loans are granted by Boards of Public Works, namely, at three and a half per cent. with an extended repayment as far as 25 years; the repayment only to commence at the expiration of five years.

Mercurii, 15° die Aprilis, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne*, called in; and further Examined.

1004. ARE you now prepared with an account of the actual expenditure upon Government roads in Ireland under the management of the Board of Public Works?—I am, for the last year; and I request to add a few explanations with reference to the system adopted in Ireland, and more particularly in comparison with that which has been stated to work well in the Highlands of Scotland. The very great benefits which the Highlands of Scotland have derived from the Parliamentary roads, and the perfection to which the system of management has by degrees been brought, has naturally and very properly turned the minds of the Committee to a comparison with the works having the same object in Ireland. Some explanation is necessary to account for the difference that is supposed to exist in the cost, as well of management as of these repairs. I may be allowed to remark, that nothing can be more delusive, and at the same time nothing is more common in Ireland, than to endeavour to adopt fixed standards for the cost of work, without regard to circumstance or situation. Very many grand juries find, that roads in certain parts of the country are maintained in tolerable good repair at a given rate, and immediately form a resolution that they will allow no more in any part; while it is manifest that for one situated favourably in respect to its foundation, facility for procuring material of good quality, and having little traffic, the expense may be not a quarter what is necessary for another under different circumstances. This system must lead to unreasonable advantages in some parts, and to fair grounds for complaint in others which are less favourably placed. It also tends to a certain degree of evasion and consequent demoralization, an instance of which once came before the notice of the Board. In the course of investigation of a project for a new road, with reference to a loan sought for, it was found that the price allowed for masonry was less than it could be done for; but the quantities being in excess, and the aggregate amount of the estimates adequate, the loan was sanctioned. On pointing out to the engineer who drew up the project these inaccuracies for correction,

Colonel *J. F. Burgoyne.*

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he frankly confessed that the grand jury having made a rule only to admit the rate per perch for masonry which he had introduced, it was needless his attempting to ask for more, although he knew it to be inadequate, and therefore he had made up

RETURN of the GOVERNMENT ROADS in *Ireland*, under the Charge of the Board of

DISTRICT.	COUNTIES.	Number of Miles in each County. M. F. P.	Total of Miles in each District. M. F. P.
Central District	Clare	92 1 –	121 1 –
	Galway	12 – –	
	Limerick	17 – –	
Southern District	Cork	88 2 –	155 6 –
	Kerry	52 2 –	
	Limerick	15 2 –	
Anglesey Roads	Tipperary	41 1 27	41 1 27
	Roscommon and Leitrim	11 4 8	15 2 30
		3 6 22	
Western District, Northern Division	Mayo	111 2 2	111 2 2
Western District, Southern Division	Mayo	16 – –	137 – –
	Galway	121 – –	

Excluding those of Galway and Mayo, which have not been an entire year in operation, they will find the aggregate number of miles in charge to be very nearly 334; the expenditure, including establishment, 5,255*l.*, being about 15*l.* 10*s.* per mile, or less than 1*s.* per perch; without the establishment, 4,357*l.*, or about 13*l.* per mile, that is nearly 10*d.* per perch, and the establishment itself, including travelling and all charges, 898*l.*, that is something under 2*l.* 14*s.* per mile. The average expense for repairs on the Highland roads is stated by Mr. Rickman to be about 7*l.* per mile, something more than half that of the cost in Ireland, which is about 13*l.* per mile; but the Committee, on comparing circumstances, will readily perceive legitimate cause for that variation. 1st. The difference in the numbers of the inhabitants, the Highlands of Scotland being the most thinly inhabited of any part of the British empire; while in Ireland, and even in those parts now under consideration, the population is very dense, and not only dense, but the greater part in a state of destitution, and want of work so pressing, that immediate advantage is taken of the access thus opened to very improveable tracts of country to cover the roads with cars and carts in strings of 20 and 30 at a time, conveying lime, manure, &c. &c. into the hitherto wastes. In the Highlands this process is also in operation, but in an infinitely smaller degree, by the occasional passage of a few of the small Highland cars conveying from 3 to 10 hundred weight, and drawn by the very small ponies of the country. In Ireland also these roads form in many instances leading lines of communication between places of great traffic and resort, as between Cork and Killarney, and Limerick and Killarney, &c.; the difference on the whole may be assimilated to a comparison between the traffic on a high road out of London with one 50 miles out of it. Mr. Loch states some of these roads in the Highlands to be only 10 or 12 feet wide, while in Ireland so little as 16 and 18 feet are only admitted in very extreme cases, and the Board have recently excited a considerable degree of animosity on the part of the gentlemen in the country, because they cannot make one of these grant roads more than 21 feet wide. 2d. The roads are, generally speaking, much narrower, as above remarked. They are almost universally without fences, and generally on a hard dry soil, while a great extent of the Irish roads are over bog, requiring, of course, greater attention to draining, more surface material, and very careful watching. The road materials are more handy,

of

up the difference by adding to the quantity. By the Return which I now lay before the Committee, the honourable members will perceive the expenses for the last year on the Government roads under the management of the Board.

Colonel *J. F. Burgoyn*.

15 April 1835.

[*The Witness handed in the Account.*]

PUBLIC WORKS; showing the Expenditure on them during the Year 1834.

ESTABLISHMENT.	EXPENDITURE in 1834, in each District.											
	Labour and Material.			Salaries.			Incidents.			TOTAL.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
1 Superintendent, 150*l.* per annum 1 Pay-clerk, 75*l.* per annum - - 2 Overseers, 13*s.* per week - - 6 ditto, 10*s.* per week - - -	2,152	4	6	329	12	–	31	1	9	2,512	18	3
1 Superintendent, 183*l.* 16*s.* per ann. 1 Pay-clerk, 75*l.* per annum - - 1 Overseer, 15*s.* per week - - 11 ditto, 10*s.* per week - - -	1,473	8	3	407	16	–	48	15	1	1,929	19	4
1 Supervisor, 15*s.* per week - - 1 Pay-clerk, 12*l.* per annum - -	558	10	5	51	–	–	3	14	–	613	4	5
1 Superintendent, and Pay-clerk - - 26*l.* per ann.	172	18	4	26	–	–	-		-	198	18	4
1 Superintendent, 105*l.* per annum 1 Pay-clerk, 40*l.* per annum - - 1 Inspector, 30*l.* per annum - -	1,309	14	8	*114	10	–	64	7	4	1,488	12	–
1 Superintendent, 105*l.* per annum 1 Pay-clerk, 40*l.* per annum - -	1,698	3	11	*122	8	9	78	17	11	1,899	10	7

* These salaries are only for a portion of the year, as the Works had not commenced until March 1834.

of a quality perfectly adequate to the traffic, and are dug up loose, of decomposed rock or gravelly shingle, requiring nothing but screening to be fit for immediate use. It is rare to have recourse to carring and breaking the stone as in Ireland, where attempts to employ gravel or inferior material has been found quite futile, owing to the great intercourse upon it. Thus the amount of traffic, the dimensions, the foundation and material, are all the sources of additional cost in Ireland. I do not think, taking every thing into consideration, that the average expense now incurred is unreasonable, or that it can be expected to be reduced. This may be considered in some degree confirmed by a recent occurrence. The road in Roscommon, about the expenses of which the grand juries have made complaints, has now been placed by the Board under charge of the county engineer, and the lowest terms on which he has been able to obtain a contractor for it is at a higher rate than it has cost for the last three years under the Board. It will be said, perhaps, that it was not kept in good repair. I feel confident in asserting, from the reports of various engineers who were sent expressly to find fault wherever it was due, that such was not the case, speaking of its general state for travelling, nor is there a single road in Ireland, under charge of the Board, that is not in very superior condition to that of other roads in the same district. The great objects of the Board are, 1st, that the roads should be kept in thorough good substantial repair, and, 2dly, to have that done at the smallest expense consistent with a reasonable remuneration to the people employed. With respect to the relative cost of management and superintendence, it appears that the salaries of the superintendent and inspectors on the Highland roads amount to near 1,000*l.* per annum, but that is independent of travelling charges; that must form a considerable item of the expenses of Mr. Telford, or chief directing engineer, and of incidents. It is probable that Mr. Rickman's general statement of 2,000*l.* a year for management covers those items, being at the rate of 2*l.* per mile. The cost in Ireland, as exhibited on the return, is 2*l.* 14*s.* per mile; but it is made up in a different system, which will be far from showing any want of economy in Ireland. In Scotland, it appears these roads are kept in repair, under general contracts, at low rates, a very small degree of labour and materials being requisite, and the duty of the superintendent and inspectors simply to visit and see that they are in proper condition;

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the work admits of little variety; the first few inspections establish what is required; the contractor is paid periodically and in mass, and the system, no doubt, works with ease and success. In that country the affairs of society are perhaps under as regular and perfect organization as any in the world; but in Ireland, and particularly in the remote parts, there exists a spirit of demoralization, or rather a false system of society, that renders peculiar caution necessary in the employment and payment of the labouring classes. The system of general contracts for keeping the roads in repair has been tried on over and over again, without effect; except in a very few instances, where it is still in force, it was found impossible to enforce due attention to the work: the rates demanded were high, the roads were out of order, and of course eternal disputes existed with the contractors, while another very serious evil was of constant recurrence, namely, that these contractors, whose agreements were founded on calculations of reasonable prices, would frequently take advantage of the necessity of their poor neighbours to exact labour from them at miserable pittances. The result of my experience has shown that the best system for the current patching and repairs is to procure the material, broken or unbroken, by contract, and delivered (at per given weight or measurement) as required, and for spreading, attendance to drains and fences, and other operations, to employ day-labour under working overseers. It has also been considered most necessary to ensure an accurate, regular and frequent money payment, for which purpose, in all cases that would bear the expense, a pay-clerk is employed, independent of the person in charge of the works; they afford consequently a mutual check upon one another. The pay-clerk forms an important feature in our expenses, add to which the detached position of many of our roads, the larger expenditure as explained above, and the consideration that our overseers, shown on the establishment as receiving 10*s.* to 15*s.* per week, are working men, who, when not having a gang under them requiring all their attention, perform themselves little jobs, such as opening drains or patching a small hole, &c., and the expense of management is any thing but costly, or not bearing comparison with that of the Highlands. On this I could rest as a satisfactory explanation; but I will not deceive the Committee by taking advantage of the present favourable moment for making a comparison, but will confess that we have not been sufficiently liberal to the officers in charge of those works, and that we have it in contemplation, as an act of justice, to increase their allowances. Some of them are gentlemen of considerable acquirements as engineers, and have extensive districts, which they manage ably, zealously and conscientiously on salaries and travelling allowances not much exceeding 200*l.* a year. As the roads in charge of the Board increase, as they are doing rapidly under the operation of the grants, we shall have occasion to alter the arrangements, and in so doing, shall always study efficiency and economy.

1005. When was the first road under Parliamentary grants commenced?—I am not aware of the particular period; but it is many years ago, 14 or 15 years.

1006. The roads in Scotland commenced at a much earlier period?—Yes, a much earlier period, 1803.

1007. Is not the expense of maintaining and repairing a new road much heavier than the expense of maintaining a road well established, the foundation of which has become well settled?—It is necessarily more expensive, even if the road had been originally of this construction. There are always some works left to be added in the shape of drainage, and more particularly in the application of broken stone, which, if laid on all at once, would render the draught so heavy as to make the road nearly inefficient, for which reason it is customary to apply about half the quantity, and to work that down in the first few years, and then to add to it in much greater proportion, which is the usual common current of affairs on an old-established road.

1008. Is it not almost impossible to offer any fair comparison between the expense, the economical management rather, of different roads, when you consider that upon the great Holyhead line of road the expense probably of one part is ten times as great as the expense of other parts, though the road is kept in exactly the same state of repair throughout?—It is impossible to adopt any general line of comparison when it depends upon so many circumstances of situation and traffic.

Peirce Mahony, Esquire, called in; and Examined.

1009. YOU are a solicitor in considerable practice in Ireland?—I am.

1010. And you have been so for many years?—Twenty years.

1011. Where at?—I reside at Merrion Square, in the city of Dublin.

1012. You are also acquainted with different parts of the country, particularly the rural parts, and possessed yourself of land property in Ireland?—I am, generally speaking, acquainted with almost every district in Ireland, and I am possessed of some estates in the southern counties.

1013. Have you read the Act passed in the year 1831 for the extension and promotion of Public Works in Ireland?—Yes; and I have been engaged professionally in obtaining loans under that Act; I mean upon the part of those who sought the advantages of it. At the time it was in progress through Parliament, I took a very active part in its details. I made many suggestions and objections to the details; several of them were attended to, others rejected; the ground of objection which I urged most strongly, was that the rate of interest required from Public Companies, &c., under section 30, would be found too high, and that the interest of five per cent. for loans to landed proprietors, intended for the encouragement of improvements on their estates in Ireland, would render that part of the Act almost nugatory.

1014. You mean that part of the Act for encouragement of drainage and other improvement of estates in Ireland?—Yes; and while that Act was in progress through Parliament, I took the liberty of urging upon the promoters of it, that from the condition of property in Ireland, and the omission of certain authorities and provisions in that Act which I had suggested, the legal impediments would be found too great and too numerous to admit of its principal object—"the extensive employment of the Poor of Ireland, and the encouragement of Works of Public Utility," being carried into effect. The experience we have had of the operations of the Commissioners under that Act, justifies the opinion I then entertained; as, notwithstanding the admirable discretion and zeal of the Commissioners, and the anxiety of the people of Ireland to avail themselves of the advantages intended for them by the Legislature, the Committee will find by the report presented for this Session to Parliament by the Commissioners, and circulated this day, that only two loans have been made throughout Ireland to private individuals for the purposes of that Act; and I consider that if the terms upon which the Commissioners are authorized to make such loans were ever so favourable (and I regret to say that they are, in my judgment, the very reverse, and particularly so if we compare the conditions of such loans under sec. 32 of the 1st & 2d Will. IV. ch. 33, namely, at not less than five per cent. interest, the principal money to be repaid at all events within seven years from the date of the advance, and in all cases within three years from the completion of the works specified in that section—with those contained in other Acts, and especially the 3d Geo. 4. ch. 112, sec. 3d, by which a bounty of 24 per cent. (being four per cent. per annum for six years) is secured for any sum of money which individuals might advance towards making or repairing roads, railways, bridges, canals, navigations, embankments, drainage or harbours, or to the support of any fishery, colliery or mine, or *any other Work whatever, either in their own private capacity, or in aid of any Public Company*; also the 1st Geo. 4. c. 81;) yet the legal impediments standing in the way of the Lord Lieutenant, the Commissioners and the public are so great, that in 99 cases out of 100 I should consider it a waste of time and money to make application for a loan for the purpose of drainage, embankment, reclaiming, and other improvement of land. The persons who require the aid of the Commissioners, generally speaking, have their estates encumbered or under settlement; thus they are without the means of procuring money from private capitalists; and yet, while they should be the class peculiarly favoured on account of their position, their debts and settlements (the source of their inability to deal with private persons) are allowed to remain equally an absolute bar to any arrangement which the Commissioners might (in order to promote the policy of their Act) be disposed to enter into.

1015. Have you experienced that the rate of interest has proved an objection, nay, an obstacle to the borrowing of money under this Act?—I consider, that if the rate of interest was lowered to the standard at which it has been established both in England and Scotland, or even at 3½ per cent., as in the case of the Ulster Canal Company, upon their loan from the Commissioners for Public Works in England, the objects contemplated by the Legislature would be more speedily and effectually attained. Impressed monies, at the disposal of the Barons of the Exchequer in Scotland, (mentioned in the 59th of Geo. 3, ch. 135, under which the Highland roads and

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bridges in Scotland were repaired,) have been lent at three per cent. interest and two per cent. sinking fund to the Leith Harbour Commissioners and others. If that scale was substituted for the one existing in Ireland, and I know of no sufficient reason for giving increased facilities through the aid of the Imperial credit of the United Kingdom to Scotland or England beyond that which should be given to Ireland, the greatest possible advantage would flow to the Empire generally, from a speedy development of the resources of Ireland, and even by the direct advantage which would arise to the Exchequer of the Empire by an increase of revenue from that country.

1016. State to the Committee the scale in the case of the Leith Harbour?—The scale in the case of the Leith Harbour is at the rate of three per cent. interest, the principal being reduced annually by a payment of two per cent. as a sinking fund. I hold in my hand a calculation, showing the annual payments necessary to discharge 100*l.* upon that principle; and the Committee will find that the whole debt with the accruing interest will be redeemed in 50 years by progressively reducing payments. The highest being the first year of 5*l.*, and the lowest 2*l.* 1*s.* 2¼*d.* [*The witness handed in the Calculation marked* No. 1.] But supposing the annual payment was fixed, so as to be invariably five per cent., and the rate of interest to remain at three per cent., the whole debt would be discharged in 31 years; for the satisfaction of the Committee, I beg to put in this paper, which shows the operation of that scale. [*The witness handed in Scale marked* No. 2.] I hold in my hand other calculations, which I have prepared for the Committee. They exhibit what will be the payments at such various rates of interest and sinking funds, so far as I thought them likely to become practically useful.

1017. Have the goodness to state to the Committee the result of those calculations?—If I calculate on an annual payment of six per cent. by the borrower, three per cent. interest being charged, the debt will be paid in 24 years (see Table No. 3.) If upon an annual payment of seven per cent., four per cent. being the charge for interest, the debt would be discharged in 22 years (see No. 4.) At four per cent. interest, and an annual payment of six per cent. it will require 28 years (see No. 5.) At five per cent. interest, by an annual payment of nine per cent. the debt will be paid in 17 years (see No. 6.) At six per cent. interest, an annual payment of 10*l.* for 16 years will discharge the debt (see No. 7.) At three per cent. and three per cent. sinking fund, it will (as per No. 8.) require 34 years. At five per cent. interest, and nine per cent. sinking fund, it requires (as per No. 9.) 11 years. At six per cent. and ten per cent. sinking fund (as shown by No. 10.) 10 years will discharge the debt. At four per cent. interest, and six per cent. sinking fund (by No. 11.) you will find it requires 17 years. At four per cent. and seven per cent. sinking fund (by No. 12.) it will require 15 years. At five per cent. and four per cent. sinking fund (per No. 13.) 25 years. At six per cent. and four per cent. sinking fund (by No. 14.) 25 years. At four per cent. and two per cent. sinking fund (by No. 15.) it requires 50 years, the payments being annually reduced, as shown by the scale. At three per cent. interest, and five per cent. sinking fund (by No. 16.) it will require 20 years. At three per cent. interest, and six per cent. sinking fund (by No. 17.) it requires 17 years, and calculating four per cent. interest, and only three per cent. sinking fund (by No. 18.) the Committee will observe that it will require 34 years to pay the debt and interest; in the latter case, the first instalment will be seven per cent. and the last 1*l.* 0*s.* 9½*d.* per cent. Those calculations will exhibit to the Committee the annual payments to be made by borrowers, on the principle of the various rates of interest and sinking funds which I have enumerated. (*Vide* Appendix.)

1018. There is a distinction taken by the existing Irish Public Works Act, respecting the rate of interest to public bodies and to private individuals; in the one case it is four per cent. in the other five, would you make any distinction?—None; but if I made any distinction, it should be rather the reverse of that which has been adopted by that Act. In my opinion, the great object should be to diffuse employment generally throughout Ireland, to extend and improve agriculture, and to aid that class which stands most in need of pecuniary assistance. The commercial classes in Ireland, through her banking establishments, receive every possible facility, indeed I fear too much for the safety of their operations, and that at the lowest rate of interest. While the landed proprietors are not so fortunate, partly arising from the agitation in that country, but chiefly from the legal difficulty in dealing with landed securities, and this want of aid from capitalists necessarily checks the reclamation of bogs and mountains, as well as the general improvement of that country;

country: and provided due caution be observed, so that in making Government loans to the landlords of Ireland, the money lent for a public object should be *bonâ fide* expended as intended by the loan commissioners, and not diverted to other purposes, I consider that such advances on the public credit would prove highly beneficial to all classes, and should be afforded at the same low rate of interest at which the Government can borrow upon Exchequer Bills.

1019. What rate of interest would you recommend to be asked in all loans?—Considering that equal advantages should be given to Ireland, I should recommend the rate at which loans are made in Scotland. If we refer to the history of that country, we shall find her first great advance as a manufacturing and agricultural nation was about the year 1770, and that in that year a most important Act, the 10th of George 3d, chapter 56, was passed: the Committee are aware that estates in Scotland are generally entailed, and this Act was framed to meet that impediment to her improvement. By the ninth section it recites, "And whereas it may be highly beneficial to the public if proprietors of entailed estates were encouraged to lay out money in inclosing, planting or draining, or in erecting farm-houses, and offices or outbuildings for the same, upon their entailed lands and heritages: And whereas such proprietors may be induced and encouraged so to do, if they, their executors and assigns were secured in recovering a reasonable satisfaction for the money expended in making such improvements from the succeeding heirs of entail." It was therefore enacted, "That every proprietor of an entailed estate who lays out money in inclosing, planting or draining, or in erecting farm-houses, and offices or outbuildings for the same, for the improvement of his lands and heritages, shall be a creditor to the succeeding heirs of entail for three-fourth parts of the money laid out in making the said improvements;" and it proceeds to provide remedies for recovering the debt so created. If this Act was passed by our Irish Parliament at the same period, it is my sincere belief that Ireland would have advanced as rapidly in wealth and civilization as her sister country (Scotland) has done, and at this hour no language could be framed more descriptive of her wants and the condition of her landowners than that contained in the preamble which I have read to this Committee.

1020. Is there any provision contained in that Act for proving the manner in which the money has been laid out?—The person intending to make improvements must first give notice to the next heir to the inheritance, stating in detail the nature of the improvements which are intended; and he must also deposit a specification of them with the sheriff of the county in which the lands are situate. He must annually deposit with such sheriff an account of the expenditure in the preceding year, together with the vouchers by which such account is to be supported when sued for or demanded; and one year after the death of the tenant for life, who has improved the estate, his executor, &c. may sue the next heir, and get possession of the estate for repayment of three-fourths of the expenditure with interest; but the expenditure is limited to four years' rental of the estate, and to that extent the executor of the last tenant to the entail will take in priority to the creditors of the then succeeding heir. By the 26th section, upon the improvements being made, the tenant in possession, who has so improved the entailed estate, may bring an action against the next heir, either in the court of session or before the sheriff, and on due proof being given of the sum expended, three-fourths of it must be decreed a charge upon the inheritance. The 27th section extends this principle to mansion-houses and out-offices. And by the 32d section, a most useful power to exchange lands was given to the tenant for life.

1021. Is not the benefit acquired by the estate the subject of valuation, rather than the sum expended?—The 10th section says, "Provided always, that the sum or sums of money laid out upon such improvements by any one heir of entail during his or her possession, shall not in any case whatever be effectual to constitute a claim against the succeeding heir of entail for more than four years' free-rent of the said entailed estates, after deduction of all public burdens." So that there is a limitation of the power given, as to the extent to which the tenant for life may charge the estate for improvements.

1022. Would you extend to Ireland the principle of the Scotch Act, to which you have now referred?—Certainly.

1023. But for these improvements of estates in Scotland the funds are private funds, and not public?—Most unquestionably; but the banking system, so long established in Scotland, has operated in aid of this Act of Parliament. The landed proprietors in that country, having under that Act a marketable security, are enabled to avail themselves of the facilities afforded by their banks for the improve-

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ment of their estates; tenants for life can create a transferable security, on which they can, as against the next tenant in the entail, raise money. But in Ireland this cannot be done; experience proves the advantageous result of such legislation in Scotland, and I desire to avail myself of that experience to benefit Ireland.

1024. Would you recommend the principle of this Scotch Act to be extended to Ireland?—Certainly; I consider that the extension of this Act to Ireland must prove highly beneficial to all classes, the tenants as well as the landlords. In principle, it is not even in that country new. It operates on glebe lands extensively; and by the Irish Act of the 9th of George the Second, the principle of the Scotch Act is established for the increase of plantations. That Act gives to the representatives of the tenant for life a moiety of the value of the timber within one year after his decease; and by the 5th of George the Third, chap. 17 (Ireland), more extensive encouragement was given to tenants to plant on the lands leased to them. This has been acted upon to a great extent; and by its provisions trees planted, and registered as such by the tenant, will, upon the termination of his estate, become his, and not the landlord's property. But the landlord, on payment of the full value to the tenant, may retain the timber so reared.

1025. If the principle of the Scotch Act was extended to Ireland, could the landed proprietors in Ireland obtain money without difficulty for the purpose?—I think it would afford them great facilities to obtain money. The chief part of the estates in Ireland are in large masses, strictly and almost continuously from generation to generation entailed. Upon the arrival at age of the eldest son, it almost invariably follows that the estates are opened, a new set of incumbrances let in upon them, and then a re-settlement takes place; and so on, until they are dispersed by sales under the Court of Chancery to discharge the incumbrances so created.

1026. Would you not place some control as to the laying out, and as to the amount to be laid out of the monies?—I should suggest that any Act of Parliament to be drawn up for giving effect to the principle I have suggested, should provide by the most cautious details against every kind of imprudence and fraud.

1027. What security can you suggest for the remainder-man?—If a scheme or improvement was prepared by the tenant for life, I should suggest that he should have the power to petition the Court of Chancery to have that scheme referred to a Master, who should be called upon to report whether or not the intended improvement was likely to benefit the inheritance to the extent of the proposed expenditure, if so, that it should be executed, and upon strict proof being subsequently given to the Master that the expenditure was in accordance with the original scheme previously approved of by him, I should then, but not until then, charge the estate in favour of the tenant for life with the sum so expended, or such proportion of it as may be deemed by Parliament equitable. In the case of a provident holder of an estate for life, the difficulties he encounters are almost equal to those of the person who is encumbered largely by previous debt. Such a person, under the usual terms of an Irish settlement, has power to charge but a small sum as a provision for his younger children; as a prudent father, having more than one child, he naturally seeks to accumulate property in aid of the provision to which he is restricted by his settlement—that, under the present system, he does through the public securities, &c. He cannot lay out his savings upon the improvement of his family estate, for the effect would be, to enrich the elder son and deprive himself of means to provide for his younger children; the consequence is generally, and in many cases even within my own professional experience, that estates which otherwise would be improved are neglected, and the savings accumulated by the tenants for life are laid out at interest upon loans secured on neighbouring estates or in the public funds. If a remedy, founded upon the principle I have suggested, was applied to such cases, the effect would be, that individuals so circumstanced and of a provident character would invest their savings, aided by their industry on their own estates, thus enriching alike the several branches of their families, and advancing a system of national improvement highly valuable to the community they belong to.

1028. Are the Committee to understand that you do not recommend loans from the Commissioners of Public Works to be made to individuals?—Quite the reverse.

1029. Would you extend the power of charging the inheritance for improvements to tenants holding under lease?—Under certain restrictions, I am prepared to do so. But if the tenant held under a lease of three lives renewable for ever, I should give him absolute power to charge his own interest. On a short lease I would

I would give no such power to improve, unless under special contract, as against his landlord; and as my attention has been called to the leasing system in Ireland, I beg to state that there is a particular class of tenancies in Ireland to which I should like to call the peculiar attention of this Committee,—that class are College lessees; it so happens, that in the county of Kerry, with which I am particularly connected, I calculate the college of Dublin hold one-eighth. In the barony of Iraghtyconnor, their largest estate is situated; that barony is one-eighth of the county; and if we take the property which the college of Dublin hold in fee in other baronies, and add their area to that in Iraghtyconnor, I think we shall find the gross amount equal to the whole of that barony, which is one-eighth of the county. I refer to their estates especially, for, generally speaking there nas been no kind of improvement whatever made upon them. Though Mr. Nimmo, in his Report and Bog Survey, stated 23 years ago, that no estates were more improvable, he reports upon the face of the map I am now opening, that by an expenditure of 30,000*l.*, no less than 31,614 acres could be completely reclaimed, and of this estimate, 6,061*l.* is for roads, the remaining 24,352*l.* is for drains. Yet this report was made 23 years ago, and up to this hour it has remained a dead letter. I refer to this map in particular, because almost the entire district represented by it belongs in fee to the college of Dublin, and I attribute in a great degree its present state to the fact that the college only grant leases for 21 years, though by custom they are annually renewed as bishops' leases, but such a tenure is so unmarketable as property, money cannot be borrowed with facility upon it, and even the tenants who hold it do not consider it such as to justify them in laying out money on improvements to any extent. I regret that the provisions of the Church Temporalities Act, enabling the Commissioners to grant leases for 999 years in substitution for 21 years, were not extended to the college lands, and particularly so, as I have reason to know that three or four years ago the College Board (conscious of the necessity for a change in their tenures) caused a Bill to be prepared and submitted to the Government to enable them to remedy this evil; it might have been more than three or four years ago, but I recollect that Dr. Sadler (one of the senior fellows) came to London for the purpose. But after he had been here a few days the members of the College Board changed their minds, and the measure was abandoned. I understood last sessions the question was to be revived in the present year.

1030. Is the tenure exactly the same as formerly in the case of bishops' leases?—Yes.

1031. Besides college land in Ireland, are there not other lands generally called or known by the name of Sir Erasmus Smith's School Lands?—There are.

1032. Would you not also recommend the same power of leasing these lands to be given as you have suggested in respect of college lands?—I should recommend that all lands held in mortmain should be put upon the same footing as the church lands are now in the process of being placed, reserving to the present owners in fee a chief rent, but giving every possible encouragement to the tenants, by elongation of their tenures, to improve. We all know the immense extent of surface which belongs to the Ecclesiastical Commissioners, under the Temporalities Act of 1833; and if we add to it the college estates, the estates belonging to the trustees of Sir Erasmus Smith, of Sir Patrick Dunne's Hospital, and others, we shall find that a very great portion of the surface of Ireland is included in that class, and held in mortmain.

1033. Have you made a calculation showing the amount of the college land?—I have no calculation, but it can be easily procured. Mr. Griffith has made a report, valuation, and survey, for the college of their several estates some years since, and I conclude that the college would not object to afford the Committee the information they require of me.

1034. Would provisions, of the nature you have described, afford sufficient facility to tenants for life to raise money on loan for the improvement of private property?—Most certainly, to the extent they may be warranted to go, under any Act to be passed for that purpose.

1035. And would that dispense with the necessity of loans of public money?—To some extent, but not entirely. In the cases of loans from the Board of Public Works, I should propose to give a more extensive power, so as even to affect creditors. The chief impediment to borrowing from the Board of Public Works lies not merely in the settlements which would interpose between the Commissioners' security and the fee, but also in the various charges vested in creditors; and when the

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Public Works Act was originally brought into the House of Commons. I suggested that all loans made by the Commissioners of Public Works (they being an independent tribunal, with an appeal to the Treasury,) should have priority of every species of debt or settlement affecting the estate granted in mortgage to them. I did so, presuming that the Commissioners could not (under the terms of the Act) be induced to make loans for improvements which did not embrace public as well as private advantage. Unless such a priority be given, it will be found idle to expect that large sums of money will be ever employed by that Board in the improvement of land in Ireland, either by drainage or otherwise. The owner of an estate in a given district may be perfectly free and able to give them a security, but to make his projected improvement effectual, for public, as well as his own private, purposes, it most generally happens that it will be necessary to extend that improvement through some neighbouring estates, the owners of which may be under embarrassments or legal disability. In such cases, the efforts of the party willing to lay out capital are paralysed; but if the Board of Works had authority to give effect to the principle of general improvement by public aid, we could safely apply through them many remedies for the difficulties which the law now imposes; upon the same principle that by private Acts of Parliament for the establishment of public companies, we are enabled to take private property, even from incapacitated persons, for public purposes. But in order to protect creditors and remainder-men, I should propose that due notice be given to them of applications affecting their rights to the Board of Public Works, that the scheme for the improvement of each estate should be given in detail; and that the Board of Public Works should, before one penny is advanced, take ample security that the money they are about to advance should be duly expended upon the scheme they had approved of, and thus the creditors and remainder-man having had full notice, (should they have any valid objection to the grant, or to its mode of expenditure,) would have ample time for making their case out against the mode of expenditure and the loan. If, on the contrary, their objections were found unreasonable, it would be unjust to the tenant for life or owners of the estate, as well as injurious to the country, and a check to carrying into effect the object of the Legislature, if unreasonable objections on their parts were allowed to prevail. If I felt myself at liberty to detail the private circumstances of some gentlemen in Ireland, I could give abundant proofs of how much the want of such an authority to interpose between parties for their mutual advantage impedes the desired improvement, and keeps so large a portion of the country in so neglected a state.

1036. Then in all cases you would give a priority to the money advanced by the Board of Public Works?—Certainly, and upon the principles I have attempted to explain; because I consider that the Commissioners of Public Works and the Lords of the Treasury, they being responsible to Parliament and bound to report their proceedings annually to the public, are not likely to lend money except its expenditure will promote the public as well as private interest; much less could I apprehend that for the benefit of the applicant they could be induced to lend themselves to do any scheme by which the true and solid interests of the remainder-man or the creditors of the applicant could be compromised. In short, I expect that the loans on landed security which I refer to will be restricted to such indisputable and manifest improvements as will avoid all reasonable cavil on the part of remainder-men or creditors, and merely protect the applicants from expense and the embarrassments arising from a defective state of the law of property. I will call the attention of this Committee to one remarkable instance, that of the Dublin and Kingstown railway, to which the principle I advocate has been applied. Their Act passed on the 6th of September 1831. Under the 84th section of that Act, it was expressly declared, that the loan to that company should take priority of every other engagement of the company, and so also by the Ulster Canal Act. Thus the Committee will observe, that the principle which I recommend has already been adopted by the Legislature, and now affects large portions of capital belonging to private persons though vested in public companies, and therefore that to effectuate my object the principle only requires extension.

1037. Is it not rather to money invested in public works in contradistinction to the improvement of private property?—In the cases I refer to they are undoubtedly public works, but still they are works conducted by private individuals for private profit, and are according to every principle of law private property. If we look to the able reports on the improvement of Irish bogs, of 1812, and consider the great Parliamentary objects there set forth, while we find several millions of acres improvable

provable in the highest degree (the mere surveying of which by orders of Government must have cost a considerable sum of money), we must conclude that there is some radical defect in our present system, for as yet nothing of value (except to science) has resulted; no extensive reclamations have been as yet attempted; and that arises chiefly because of legal impediments; and while they remain it is hopeless to expect that those immense tracts of land will be effectually improved. This subject must be grappled with, or we of this generation will not have discharged the duties which we owe to our country and our posterity.

1038. Would not the object in a great degree be obtained by relaxing those impediments which affect it as far as regards its character as private property, without having recourse to public loan?—In time, for no doubt as Ireland improves her condition and advances in prosperity, a great deal will be accomplished by the application of private funds to such purposes; but if it be desirable to advance that country more rapidly, and as Scotland has been, partly by the liberal expenditure of public money on various improvements, such as the Highland roads and bridges, the Caledonian canal and other works, something like what I suggest must be done. Were liberal advances made for the improvement of agriculture in Ireland and the reclamation of her extensive bogs, I think the general resources of the Empire would be improved to an extent which I dare not attempt to limit by any speculation of mine.

1039. In your opinion would the country be more benefitted and advanced by money to be laid out in the improvement of land than in the prosecution of public works?—I know nothing that would improve the condition of Ireland so much or render her population more happy than the reclamation of her waste and bog lands; the immediate employment of her population, which would result from such an employment of capital, would necessarily diffuse throughout that country, first, an increase of comfort to the labouring classes, by producing continued employment at an advanced rate of wages, and next, such a feeling of gratitude and contentment as would produce internal peace and consequent prosperity among all ranks, creeds and classes. I have no doubt that, even in a financial point of view, England would within five years, by lending the assistance of her public credit for a few millions to Ireland, be the greatest gainer, even the saving by the reduction of her military and police establishments, now employed to keep a half-starving and unemployed population in submission, would be sufficient in a few years to pay off all the monies which would be required to effect the objects I contemplate.

1040. Accompanied with that declaration, would it not be necessary to have roads and bridges and lines of communication made in order to afford facilities for the transportation of agricultural produce?—I consider that facilities of communication are the necessary and indispensable foundations of all internal improvement. The roads called the Wellesley and Anglesey roads, which have been made of late years in Ireland, already produce singularly beneficial effects. It so happened that I had not seen the new Government roads in the neighbourhood of Abbeyfeale and Castle Island until last September, and having known that district perfectly before they were projected, I confess I felt astonished at the extent of the general improvement which the opening of these roads had produced.

1041. When you propose to give precedence to security to be possessed by the Board of Public Works, are you of opinion that the proposed works should be conducted and the money lent and expended by the Board for the protection of creditors and the remainder-man?—I should, as I before stated, place the expenditure under the strictest possible surveillance; I do not intend to suggest any improvements of a minor scale, and for mere individual interest, through the aid of public money. Such improvements on a minor scale, and not embraced as a part of a more extended system for a given district, may be accomplished through the alteration of the law which I have already suggested, and by private funds; but for such a district as that described by the map before me (the Cashen district, in the county of Kerry), where it is impossible to improve effectually except upon a large scale, I think that the entire work should be done under the superintendence of the Board of Public Works; that those persons who receive benefit, and who were unable or unwilling to contribute towards its execution, should be assessed, allowing the proprietors who paid the assessment voluntarily, or who may be forced to do so, to charge their estates in priority to creditors and others for the amount of the assessments made on their estates by the Board of Public Works, and in return the remainder-men and creditors would reap the extensive benefits which must flow to them from a general and substantial improvement, not only of

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the particular estate in which they were interested, but also of the district about it, thus securing the greatest of all benefits to a creditor or inheritor, the improvement and consequent pacification of the district in which his property lies, and this cannot (at least in my opinion) be attained by any other means within a period (if ever) on which we can calculate.

1042. Would you extend the mode of proceeding which you have suggested, in cases of reclamation of bog lands, to the embankment of lands, circumstanced as those lands are, with which you are acquainted upon the banks of the Fergus and the Shannon?—Certainly, throughout Ireland; my views are not confined to any particular district; I merely referred to the district of Listowell, because the map of it happened to lie open before me.

1043. This is not a new principle you have started; it has been acted upon in other cases, has it not?—I have started no new principle; I merely seek to extend that principle to Ireland, which has been found to work so beneficially in Scotland; and I will refer the Committee to the 43d of George the 3d, chapter 80. It was the first act for enabling his Majesty to grant money towards making roads and building bridges in the Highlands of Scotland, and for enabling the proprietors of land in Scotland to charge their estates with a proportion of the expense of making and keeping in repair roads and bridges in the Highlands of Scotland. That Act embraces the principle I seek to introduce, and though under it the Government were restricted to an issue of 20,000 *l.*, yet I find by the recitals of 59th Geo. 3d, chap. 85. (which passed in 1819, not more than 16 years after the first Act,) that no less than 240,000 *l.* had been contributed for the same purpose from time to time by Parliament. To this I conclude, that we have to add a similar expenditure of 240,000 *l.* by the landed proprietors of Scotland; and I confess that I view with alarm and regret the apathy of my countrymen, and particularly our representatives, who have not insisted on the trial of a similar experiment to improve the condition of Ireland. Surely the Irish are as well entitled to the aid of the larger and richer portion of the empire as Scotland, the West Indies, Canada, &c. May I hope that the system of inquiry about Ireland, and merely recording, reporting and debating, may be succeeded by the enforcement of practical results. All that we now urge for the benefit of Ireland has been done for Scotland, because her representatives insisted on the justice of her claims, and the measures which we now discuss for the amelioration of Ireland were recommended so long since as during the Duke of Ormond's government of that country in 1613; yet, as to Ireland, little more has since been done than to appoint committees, inquire, report, and debate.

1044. Does that provision apply to the improvement of private property, or to the formation of Public Works, in the nature of roads and so on?—I consider that the improvements I refer to in Scotland are of a two-fold character; they embrace a public object, (the making those great Highland roads which I find by the Act of Parliament before me, up to 1819, cost 240,000 *l.* of public money, and that was justification for the expenditure and free grant of the public money,) and by their effects a private advantage, for the value of the landed property through which they pass has been considerably enhanced; the latter effect was the justification of the Legislature for enabling the tenants for life to charge the next inheritor with a portion of the assessment on their lands for these improvements. I do not, therefore, call these roads purely a Public Work unconnected with private advantage.

1045. But that was the incidental advantage, not the direct improvement to the property?—It was incidental, but it combined the public interest with the emolument of private persons, owners of the estates intersected.

1046. It operated as an improvement, but it was not a direct improvement?—I consider it effected a direct and immediate improvement of private property.

1047. Was not that the effect of private improvement through the means of a Public Work?—Yes; but if the private individuals had capital enough of themselves to have made that road, they could not have proceeded to an improvement of their estates in a more effectual manner. In fact, they must have commenced with making roads to carry on the operations of agriculture, as well to procure a market for their produce as to bring home manufactures to supply their wants, and manure to cultivate their soils.

1048. But though that principle is the same as respects tenants for life and remainder-men, the principle surely is very different as respects landed proprietors and the public? The latter principle applies entirely to the formation of Public Works, and the other to the improvement of private property?—I consider the proposition I have made for reclaiming large districts in Ireland, partly by the aid

aid of loans from the Commissioners of Public Works, is in principle like to the public expenditure on the formation and repairs of the Highland roads. It is a combined purpose, partly public and partly private; such improvements will no doubt directly enhance the value of private property, but they will likewise advance the public interest, and that too, according to the experience we have of the effects produced by other works, in a much greater degree, though indirectly, through an increase of civilization and revenue; besides, taking up the subject with a view more to its imperial than to the provincial interests, the effect must be to bring many millions of Irish acres into profitable cultivation; affording employment to a numerous and half-starved population, who will then become, what they are not at present, consumers to a large amount of English manufactures.

1049. Would you, previous to the advance of money for improvement of private property complete such roads as formed the great lines of communication through the country?—If the system of improvement is to be established on a large scale, I should open the roads and drains at the same time, so that when both were finished the farmer may commence his operations; but if the public aid was so limited as not to permit of a combination of both objects, then I should commence with making roads; and allow me to call the attention of the Committee to Mr. Nimmo's estimate for the Cashen district, which shows the probable proportions of such expenditure. To reclaim over 30,000 acres will cost 30,000*l.* as I before stated; but of that sum, 6,061*l.* is required for roads, none of which (though planned and recommended 23 years ago) have as yet been attempted.

1050. Are you aware of any power for advancing public money for the improvement of private property in any part of Great Britain?—I am not sufficiently acquainted with the state of property in Great Britain to answer that question satisfactorily, but I should expect that many such loans have been made, either by commissioners appointed to aid Public Works, or to relieve the commercial and manufacturing classes. I hope the Committee will excuse my stating that I do not consider the cases of England and Ireland as similar. The industry and wealth of England have grown up together, and are the result of a wise system of government: Ireland has been governed during all that time by England, but upon such a system as to have effectually checked (except for late years) her industry and wealth. The present effect is that her wealth bears no just proportion (if we compare the condition of Ireland with that of England or Scotland) to her population, and in order to correct and remedy this evil, I only ask of English statesmen to give Ireland such aid as will diffuse general employment amongst her labouring classes, and thus lay the foundation for an increase of her wealth to the same standard in reference to population as that of England. The Irish peasants may well repine that they have not been able to excite the sympathies of England; they know that for their fellow subjects (who were until last year slaves in the West Indies) 20,000,000*l.* of money were freely paid by England, while a *loan* of one-fourth of that sum for the purposes I have suggested would totally change their condition.

1051. What security could be given that the money advanced for improvement of lands and made a first charge on the estate would be expended for the precise objects detailed in the application, and not applied to personal advantage?—The question involves no difficulty whatever; we may take as a model the provisions of the 10th of George the 4th, chapter 109, for the Ulster Canal Loan. By section 3, it is necessary for the company first to expend a given sum of money, say 5,000*l.*, and having done so, the commissioners lend the company 20,000*l.*, taking security for its due expenditure, and when the company ask for more money, they must prove to the satisfaction of the commissioners that they have expended not merely 5,000*l.* additional of their own monies, but that the 20,000*l.* first-lent has been also duly expended, and so on to the end. I should also observe that the English Loan Commissioners have appointed an engineer to inspect the progress of these canal works, and that he is called upon from time to time to report to them, so that, in point of fact, no advance is made until the most satisfactory evidence has been given as to the previous expenditure. If such principle was established for the improvement of lands, an effectual check would be provided. Let the Commissioners require that the borrower should commence the expenditure, and so proceed as the Ulster Canal Company do at present with the English Commissioners. I should endeavour by every possible means to guard the country and the exchequer from frauds in the use of monies to be advanced in Ireland, either in aid of Public Works or for the improvement of waste lands; no system could be too strict in its details to meet my views on this point.

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1052. Does it occur to you much easier to measure a canal, by observing the work done upon the canal, than to ascertain the improvement by means of reclamation and drainage?—I do not anticipate any increased difficulty with respect to drainage, as the works are easily measured, as a canal embankment, and the price to be paid for one, is as readily ascertained as for the other.

1053. Do you contemplate the improvement of agriculture, or do you merely now mean to state to the Committee a recommendation respecting the drainage of lands?—As to the drainage and improvements recommended by Mr. Nimmo, Mr. Griffith, and other able reporters on the Irish Bogs, my view is this, that the public aid should be confined to the preparing of these lands for agriculture, that is, putting them into a state fit for the husbandman to commence his work. I do not propose that public aid should be given beyond that point. The introduction of the Scotch law which I have suggested would aid in completion of these improvements; and I find that the principle of the Scotch law has been so much approved, that there is now pending in the House of Commons a Bill, brought in by Mr. George Fergusson and Mr. Cumming Bruce, extending the encouragement to make improvements to tenants for terms not exceeding 21 years. To that Bill I beg to direct the attention of this Committee, for a similar provision by law in Ireland would tend greatly to advance the cultivation of the college and other corporate estates which I have mentioned. Its recital fully establishes that the principle I contend for has been beneficially carried into effect in Scotland. It runs thus:—"Whereas several Acts have passed in the reign of his Majesty King George the Third, and in the reigns subsequent thereto, to encourage the improvement of waste and uncultivated Lands upon Entailed Estates in that part of the United Kingdom called Scotland: *And whereas under such encouragement much capital has been laid out, and millions of acres thereby redeemed from waste*: And whereas in administering the law applying to such improvements it has been held, that meliorations to tenants holding improving leases should be a charge upon the personal property of the grantor of such leases, instead of constituting a charge upon the rental of lands so improved: And whereas the spirit of all laws and all leases now existing contemplate and imply such charges becoming a legal burthen upon such rental;" and provides, "that where tenants bind themselves to erect buildings, &c. the meliorations therein covenanted for shall constitute a preferable claim against the rents, not exceeding two years of the free rental; and that the sheriff may appoint a person to report to what extent yearly value has been created: and that where mills or other machinery have been erected under the sanction and guarantee of a lease, then it shall be competent to the proprietor of the estate to fulfil the conditions of the same out of the rental of the estate, or failing to do so, it shall be competent to the tenant to sell or remove the said mills or machinery, as to him, her or them shall appear most desirable."

1054. Is not laying down gravel a very large part of the expense attendant upon reclaiming land?—Yes, and that comes quite within my view; namely, preparing the land for the husbandman.

1055. Is it not difficult to ascertain the quantity laid out upon land?—It is not by any means difficult, if a proper system be adopted.

1056. You have suggested, that in case of these great improvements the works should be wholly under the superintendence of the Board of Public Works?—With the assistance of persons appointed by them, as in the case of public works through contractors.

1057. Then such proof on the part of proprietors of land would not be necessary?—No. I visited last September the Crown estate in the county of Cork, where improvements are making upon a great scale at the public expense, and under the management of Mr. Griffith, controlled by the Commissioners of Woods and Forests. That estate contains 5,000 acres of mountain and bog. The first operation has been to open roads through and from it to the different market towns; and now the buildings and other improvements on the estate *per se* are in progress, but, as I understood from the overseer, they are not, with the exception of a model-farm, to go beyond the point I suggest, namely, draining, fencing, planting and buildings. This done, the Government officers propose to let the entire lands to farmers at moderate rents.

1058. Would the direct and immediate profits repay the expense of such reclamation of waste land on a large scale, or do you think the indirect advantages to the country is to be considered adequate remuneration for the advance?—I do not entertain the slightest doubt that such a system of improvement would increase the national

national wealth and power to such a degree, as not merely to justify the expenditure I contemplate, but ten times as much more. And I beg to refer the Committee to Mr. Nimmo's own concluding words upon that subject; they will find them in page 102 of his Report to the Commissioners for Bogs, &c.:—"Upon the whole, I am perfectly convinced of the practicability of converting the whole of the bogs that I have surveyed into arable land, and that at an expense which need hardly ever exceed the gross value of *one year's crop* produced from them, that I declare myself willing, for a reasonable consideration, to undertake the drainage of any given piece of considerable extent, and the formation of its roads for the sum of 1 *l.* 1 *s.* per acre; and to prepare the same for the reception of any crop for 10 *l.* per acre, which is little more than seven years' purchase of the rent it would then afford. At this rate, the whole bogs I have surveyed in this district, about 150,000 English acres, might be converted into arable land for about 1,000,000 *l.* sterling."

1059. If the improvement is so immediately direct, where is the hardship of demanding a large rate of interest?—The rate of interest in Ireland during the last 20 years has been gradually declining; at first it was 6 per cent. generally throughout Ireland; since the formation of the provincial bank of Ireland (by which establishment the rate of discount on commercial paper was reduced to 4 per cent.) the tendency has been to reduce the interest on landed securities to 5 per cent., and that is pretty generally the rate in Ireland; but we now look to reduce it to 4½ and to 4 per cent.; already in the north of Ireland many securities are held at 4 per cent., but in the south and west we find we have not reduced it below 5 per cent., and my opinion is that the Government aid should (when afforded at all) be given upon the most liberal terms; it should be for *aid* and not for *profit*, as mere money-lenders; the Treasury should be content to receive the same rate as that which they pay, accompanied, as experience proves it would be, by increase of revenue and the numerous other great advantages which would flow from an improved state of agriculture and society in Ireland. Evidence has been given before several Committees of this House, that since the new roads have been made, during Lord Wellesley's and Lord Anglesey's governments, the excise revenues of the several districts through which they were carried have so increased as to amount in one year to a sum equal to the gross expenditure on them by the public. Besides this improvement of the revenue, I am entitled to calculate on the saving of public money through a reduction of the police and military force kept up in Ireland, and which would necessarily follow an improvement in the condition of her people; and in reference to this subject I beg to hand in a letter which I received from Mr. William Shea, accompanied by the calculations he enclosed in it.—[*Witness handed in the Letter and Calculations; vide Appendix.*]

1060. But if the rate of interest is low, should not the per centage payment to the sinking fund upon these works, which produce an immediate and profitable investment of money, be much larger?—It would be a very proper arrangement to regulate the amount of the sinking fund according to the individual circumstances of each loan; and I should propose to give the Board of Public Works full power to decide what should be the amount of the sinking fund in each case.

1061. You are aware under the present Act that the Commissioners are confined with respect to public bodies to 4 per cent., and 4 per cent. sinking fund?—That is the condition imposed by their Act, but after the loan has been advanced they are empowered by another clause in the Act (subject to the control of the Treasury) to prolong the periods for repayment of the principal money advanced, though they cannot reduce the rate of interest below 4 per cent.

1062. You are aware, in case of private individuals, money advanced by the Board for the purpose of improving estates must be repaid within three years after the work is completed, providing that completion is not effected within seven years?—Yes.

1063. Would not the scale you have proposed of 3 per cent. interest and 2 per cent. sinking fund be very injurious, as making the money advanced by Government go much less way than if the sinking fund was considerably heavier in this case?—I should prefer the second scale given in by me to the first; under it the payment would be uniformly 5 per cent. on the amount originally borrowed, of which 3 per cent. is to be deducted for interest, and that would discharge the entire debt in 31 years, and in some cases I should require a larger rate of redemption. Whatever sum the borrowers could (by the profit on their works) afford to pay in the shape of redemption I should enforce; but from the principle and system on

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which loans are now made by the Board of Works I respectfully dissent. I hold in my hand the first mortgage granted to the London Loan Commissioners by the Ulster Canal Company; the conditions are to repay the whole sum lent with interest within 20 years, as follows: on the fifth year one-fifth of the advance, together with interest on the whole sum for that period at 3½ per cent., and for the succeeding 15 years a twentieth part of the loan, with interest on the balances at the same rate, 3½ per cent. Even to this system many strong objections arise, for upon the opening of the canal, and before its trade is advanced and scarcely existing, the company have to make the largest payments; I should rather reverse the order, or at all events divide the instalments so as to operate equally on the last 15 years.

1064. In your opinion do you think that these reclamations would take place in Ireland, without the aid of money advanced by the public?—It is a mere question of time; if we desire to improve Ireland to any great extent, within 20 or even 50 years, I should not hesitate to say that we must get the aid I suggest, not money as a grant, but the assistance which England can give us in borrowing money by joining us in the bonds required by the lenders. We find by the Reports on Bogs now before us, that during the 23 years since their publication none of their recommendations have been acted upon; I only know of two instances, that of Mr. Featherstone in the county of Westmeath, and the other is by the Government in the county of Cork. Mr. Featherstone's experiment has been most singularly successful, it so happened that he had the power of acquiring a large quantity of bog, and he having capital enough to improve it, he is now enabled to grow the best wheat on land which could scarcely have been trodden by snipes a few years ago; but in those districts on which Mr. Nimmo has reported, and with which I am well acquainted, I do not hesitate to say that I have no hope of seeing any thing effectually done, at least upon what I should call a national scale, unless the law as to tenants for life and lessees under corporations is altered, and that they and the other classes of landowners are judiciously aided by the Government.

1065. Can you state to the Committee any particular instances of large estates, capable of improvement, that now remain in a state of waste for want of those improvements?—There is one estate belonging to Mr. Martin, of Connamara, I understand it is 200,000 acres. I have not seen it, but from all the reports of its condition which I have read, the expenditure of capital upon it would realize most extravagant profits. Mr. D'Arcy's estate, at Clifton, is in the same condition. Besides these, I could name many other estates of very large extent, which afford equal temptations for the expenditure of capital, most beneficially to individuals, and still more so, though indirectly, to the empire.

1066. Is the Committee to understand, that, in your opinion, money would be most usefully lent by Government to individuals and public bodies at a rate of three per cent. interest, and a sinking fund of two per cent.?—Yes.

1067. That is your opinion?—Certainly; but I think that a discretionary power should be vested in the Treasury and the Board of Public Works to increase the amount of the sinking fund, according to circumstances; and where the improvements about to be aided were of such a character as to enable the borrower to repay the loan more rapidly than at the rate I suggest, it is my desire to make such borrowers do so, in order to keep up the available fund at the annual disposal of the Commissioners as high as possible.

1068. How would you provide for any loss arising to the public, in case of any deficiency of security?—Loss to the public is almost out of the question. The provisions of the present Public Works Act are very strict, every possible precaution has been taken; the loans under it can only be made upon unquestionable security; and while on this point I beg to say, that while I do not complain of the cautious system adopted by the professional persons connected with that Board, yet I feel that in order to give effect to the intentions of the Legislature, it is necessary to remove many difficulties of a mere technical nature which now deter persons from dealing with the Commissioners.

1069. Why lose the reasonable precautions Government has provided, to give effect to the provisions of the deed and to prevent any loss?—I do not wish to abolish any useful precaution by the Commissioners, I only desire to reduce the legal expenses, the rate of interest charged by them, and to (above all things) remove the legal impediments which act as barriers against the objects of the Government and the Parliament. I should look upon it as a mischief to the country if the Board of Public Works had authority to lend money upon any but the

the best security, because, if they were so to lend money, their operations would tend to encourage unproductive and speculative improvements, which would lead to loss of private as well as public capital, and end in ruin instead of steady prosperity.

1070. Suppose they are mistaken and the thing should turn out ill?—I cannot suggest any remedy in such cases; they result from the defective power of foresight in human agents, and to the consequences of which human institutions must remain liable.

1071. Do you not say in that case the public are losers?—In extreme and isolated cases they may be losers, but upon the whole result of the experiment the public must be greatly the gainers.

1072. Are they repaid in any way or not?—The general effect of such a system of encouragement as I have described, must be to ensure ample repayment for occasional losses.

1073. Suppose a war to arise, and the rate of interest upon public funds instead of three per cent. on Exchequer Bills was to become five, how would you indemnify the public in that case?—Very easily; I should adopt the principle which is acted upon by Insurance Companies at present, they advance monies at a variable rate of interest, regulated by the price of the funds; if the funds are at 80, the rate of interest is regulated accordingly; if at 90, the rate of interest is reduced; if it goes back to 70, it is increased. The Government may adopt a similar plan, and thus the changes from peace to war would be effectually provided against. No difficulty whatever can arise in applying this principle to Government loans; it is well known and extensively adopted by Insurance Companies.

1074. In reference to the reclamation of waste lands, would you think it objectionable that a power should be given to grand juries to take tracts of bog or mountain land, under particular circumstances, for the purpose of establishing institutions, similar to the Home Colonies in Holland, with a view of employing the able-bodied poor, and at the same time improving the country?—My opinion upon that subject would be governed by the details of the plan. In grand juries, I have little, if any, confidence; none in their administrative powers. I might, under circumstances, be disposed to give them power to present money to purchase lands for public purposes, but I never would give them the power of administering all the details of an establishment for the poor. We are not far off from a system of poor law of one kind or other, and, when the machinery for it be established, to the body so erected I should commit the management of such establishments as now suggested to me.

1075. Supposing you were to confer the appointment by grand juries of a permanent committee of superintendence to manage and regulate such poor colonies, would you, under those circumstances, consider it objectionable that the power of taking such land should be given to grand juries?—I should very much doubt the prudence of giving such powers to grand juries, for my experience leads me to think that there exists too great a spirit of jobbing in those bodies. When a poor law is established in Ireland, I hope to see it guarded by every possible means from abuse, and placed under the management of Commissioners appointed by the executive authorities, and responsible to Parliament.

1076. Would not such institutions act as excellent agricultural model schools?—Undoubtedly; and their being so would induce me to think favourably of them. I am a great advocate for the establishment of agricultural schools, and I am now engaged in an endeavour to establish one upon the principle of the Wexford school in Kerry, and another at Limerick.

1077. To what circumstance do you attribute the failure of Mr. O'Ferrall's Act?—The Act to which the question refers is the 1st & 2d of Will. IV. c. 57, and the opinion I now entertain of that Act is the same as that which I expressed when it was introduced into Parliament, namely, that its machinery would be found so cumbrous as to destroy its efficiency, as no body of men could give it existence without the constant attendance of professional persons. The power to erect companies, which this Act gives to the Lord Lieutenant, should have been given to the Board of Public Works, and in as general terms as possible, so as to enable them to meet each particular case in framing the charters which they may be called upon to grant. Under this Act of Parliament, a strict and technical attention must be paid to each and all of its provisions, and this creates legal impediments, which can scarcely be conquered except by the vesting of such general authority as I suggest in some public board. At present we have the principle which I suggest acted upon

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upon by the Board of Trade. As my attention has been called to this Act of Parliament, I beg to state that the principle of charging the inheritance with the outlay made by the tenant for life in its improvement, has been strictly laid down by the 76th section, not merely as applicable to tenants for life, but to bodies politic and corporate, vicars, rectors and others; they are entitled to mortgage their lands for any sums which may be assessed upon them. Under this Act they are only bound, as life tenants, to pay the interest on the charges thus created.

1078. You mention some corporation under the Board of Trade in England; to what corporation do you allude?—Trading corporations; and the only remaining impediment is the very considerable expense attending on the grant of a charter; it is seldom less than 800*l.* That sum is paid in fees to the public offices, and as I propose the creation of a similar power and in a new tribunal, I do not consider that I shall affect any vested interest, either of the Attorney General or any other person, if I establish a new scale of fees upon a moderate basis.

1079. Is not the direct profit of reclamation of bog and waste lands on a great scale still a problem; the operations on the Crown lands at Pobble O'Keefe are only called experimental, and will after a few years throw a great deal of light upon the subject?—They will; but I do not think it all experimental; when they are improved, they must be highly profitable; there is no person acquainted with the surface of Ireland who must not give evidence to this effect.

1080. Is it not strange, with the very profitable returns promised by Mr. Nimmo, only two attempts have been made at reclamation on a large scale, those quite recent, and one of them by Goverment?—Considering the state of the country, the districts in which the bog lands are chiefly situate, and that they are held in large masses by proprietors (encumbered by very large debts) or tied up by settlements, it is not to me a matter of surprise; I may add, for the information of the Committee, that a very large mass of property in the county of Kerry alone, and which was the principal object of his survey, labours under a great disadvantage, on account of the defective state of its tenure—I refer to the college estates, which are held for a term of 21 years, and though they are by custom renewed annually, the nature of the tenure has checked and will continue to impede improvements on an extensive scale upon them. We also find that some of the roads recommended by Mr. Nimmo as introductory to his system have only been made within the last five years.

1081. Would not a great part of the difficulty be removed by empowering tenants for life and public bodies to charge the land in remainder?—Certainly, but to a limited extent; we must superadd even to loans, many additions to the existing law. The map I refer to shows that though 23 years ago Mr. Nimmo recommended (in order to make the river Feale navigable from the sea to very near the town of Listowell, a distance of ten miles) an expenditure of 1,000*l.* upon the Cashen Bar, yet it has not been executed, and that arises solely from want of power in the grand jury of the county to make such a presentment. I am only pointing out one of a thousand instances which these reports suggest to my mind.

1082. Is not cutting through the bar a very questionable experiment?—Mr. Nimmo speaks of it as quite practicable; not being an engineer, I do not wish to venture an opinion, but after having visited that place in last September, I do not doubt of the easy execution of the work.

1083. In reference to the question whether any improvements at Pobble O'Keeffe, had not been problematical, are you not acquainted with many districts in which the difficulty you have described with respect to the proprietorship does not exist, in which the most striking and almost inconceivable improvements have taken place, particularly in the west part of the county of Clare?—I am not acquainted with that part of the county of Clare; I have not visited it for some years; but in the district in the county of Kerry which I visited last summer, the improvements on Lord Headley's estates present a striking illustration in aid of the principle which I have suggested.

1084. You have stated the payments to be required by the Board of Works to be five per cent., that, I believe, is the species of loan for the improvement of private property; but the case referred to of loans at a lower interest, such as the Ulster Canal Company, were for public works?—Yes; I propose the payment by the borrowers annually to be five per cent. on the gross amount borrowed, but that the rate of interest should be only three per cent. The loan to the Ulster Canal was made at 3½ per cent. interest, and by the English Commissioners, and not the Irish Board.

1085. But

1085. But still the money that has been advanced at a lower rate of interest is for a public work, and not for the improvement of private property?—Certainly.

1086. But is it not unfair that parties who borrow for the improvement of their private property and the increase of their revenue, should have the power of borrowing at the same rate of interest as individuals who are borrowing for the sake of completing a great public work or object?—A distinction may be often drawn between such cases, and my wish is that the Board of Public Works should not show themselves over-anxious to make loans to private individuals; I should leave a discretionary power with them, trusting that they would be governed solely by a desire to advance a great public object.

1087. Is it not rather important that there should be a high rate of interest to check constant application from private individuals for private advantages to obtain loans?—It does not appear to me advisable to check applications to the Commissioners. Let every possible case come before the Board of Public Works; they will by that means have increased information and a larger field to make selections from; and upon them and the Treasury will rest the responsibility of the advance.

1088. Do not you consider the improvement of waste land is a public work?—Decidedly, and as one of the highest degree of utility.

1089. You made a distinction between public work and waste lands; it may be in the hands of a private individual and may still be a public work, because for a public purpose it is done?—It must tend to increase the public wealth.

1090. Have you turned your attention to the expenses arising out of the present system of advancing loans by the Board of Public Works?—Yes, to that part which may be called the legal expenses; I consider they may be most advantageously curtailed and reduced to a mere nominal charge. The Public Works Act should be amended, and a formula of mortgage in a few lines (as by the 74th section of the 1st & 2d Will. IV. c. 69) adopted, and priority should be given by the Act to every such mortgage. The Act I refer to was for the establishment of the Kingstown Railway, and when we agreed for a loan with the Board of Public Works, and that we came to prepare the security, I argued that the Commissioners ought to accept it in the form given by the 74th section, which contains just fifteen lines, aided as it would be by the 84th section of the same Act, which declared that any advance by the Public Board of Works was to have priority of every other claim on the Company. In my opinion no security could have been more perfect; however, the legal adviser of the Board thought differently, and the consequence was, that they prepared one of the most voluminous instruments as a mortgage which I ever saw, and even that they called but a preliminary mortgage. I then urged the adoption of the form of mortgage used in England, as in the case of the Ulster Canal, which contained but three sheets of paper; but there again I was foiled, and the result was, that the Company submitted to the expense of the mortgage deed as prepared by the legal advisers of the Commissioners, and the advances were made to within 1,000 *l.*, according to agreement; but I am now called upon for a second mortgage, much more voluminous than the first, and when it was sent to me I was called upon to make out title to every inch of land through which the railway passed, though I had bought under the authority of inquisitions. To this I most decidedly objected, as the making out of title in the manner proposed would have involved the Company in an expense which I could not have estimated, even as low as 10,000 *l.* We bought from about 450 persons, and if I submitted I should have been obliged to make out 450 titles, one for each particular estate, and upon bringing my objection before the Board of Commissioners, they waived the inquiry as to title, but chiefly on showing them that the Loan Commissioners in England never made such a requisition. Therefore, in order to protect the public and the Board of Works against the recurrence of such a demand, I beg to suggest (at all events in reference to canals, railways, and works of that description) that a formula of mortgage should be introduced into an amendment of the Public Works Act, which may be executed by the borrowing parties, and declared to take priority of every other engagement of the borrowers. If my suggestion is adopted, the expense which will attach to these transactions will not exceed a few pounds, say 10 *l.* in any one case.

1091. What was the total expense in this case?—I never saw the bill of costs, or even heard of the amount.

1092. What do you conceive the costs ought to be?—Under the Act of Parliament, and according to my views, the Commissioners of Public Works should have been content to have taken a mortgage in the form given by the Company's Act, which also declared that loans made by them to the Company should have a priority

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over all other engagements, and such an instrument could not possibly have cost so much as 10*l.*

1093. Have you had any reason to complain of the expense incurred upon application for the Report of the Board's engineers?—No.

1094. Nor of the payment to the engineers sanctioned by the Board?—No; I never had any.

1095. Are you not aware that since that case occurred, the shorter form of mortgage has been adopted by the Board?—No, I am not—though my brother and partner might know the fact.

1096. In the case which you have alluded to, what do you conceive would have been a reasonable charge for the legal business actually done, I mean including the long mortgage; you have stated the actual expense ought to be under 10*l.*, what do you conceive would be the fair legal charge for the business done?—I have no reason to believe that any thing more than a fair and reasonable charge has been made.

1097. What do you conceive to be the approximation between the expenses?—It would entirely depend upon the length of the instrument; and I do not think that, under the system upon which the security in question was given, the expense of 100*l.* was more than it ought to have been. It is to the principle of the old system I objected.

1098. In the case of the Kingstown Railway, I believe the Board made no charge for the Report of their engineers, they being on the spot?—I do not know.

1099. Are you acquainted with the sea-coast of Ireland?—A good part of it; the south coast principally.

1100. Do you consider that the expenditure of money in building of safety harbours for vessels not exceeding 50 tons burthen would be beneficial to the community at large?—Most certainly; and wherever they have been established, fishery piers have been found very useful. In truth, the extension and success of our fisheries must depend upon the execution of similar works, for unless places for asylum are established along our coast, we cannot protect or harbour the craft necessary to fish in the deep sea.

1101. Do you consider for that description of work it would be prudent to make grants?—Certainly; the experience we have of the effect of such works proves their usefulness; and in a financial point of view, I beg to suggest to this Committee, that power should be given to the grand juries to borrow money on debentures, which should circulate in the nature of Exchequer Bills locally in each county. Such securities would be sought after most greedily, and they would operate with the middle classes in aid of the savings bank. In my opinion, several hundred thousand pounds, if not two or three millions, may be raised at a low rate of interest on such county bonds, and thus the number of applications to the Board of Works would be reduced. Such debentures, payable with a small rate of interest, and for sums not less than 50*l.*, would act as a safe and advantageous currency throughout Ireland; they would pass from hand to hand, and teach the middle classes how to make their capital fructify for the smallest space of time. It is not worth while to buy Government stock for a few days; and as depositors for more than 50*l.* in any one year are shut out from the savings bank, the local securities I describe will be found most beneficial. But if this system was established, the issue of debentures by each separate grand jury should be guarded by every possible means, so as to prevent an abuse of the system by over issue. The issue should be controlled by the Treasury, and annual returns should be made to Parliament.

1102. Do you not consider the making a pier upon the south-western shore of Ireland would be beneficial to the United Kingdom?—Most certainly; it would, in the first place, tend to protect property to the value of several hundred thousand pounds annually, which is now lost upon that coast, and paid for in England by the insurers at Lloyd's and elsewhere. One of the principal insurance houses at Lloyd's told me within the last week that it was estimated that no less in value than 2,700,000*l.* of British manufacture was lost annually, and paid for by the underwriters of England; and that a large proportion of their losses arose from wrecks on the Irish coast. He has promised me a detailed statement of the facts upon which this calculation has been made, and if I receive it before this Committee report, I will hand it in.

1103. With reference to the debentures to which you have last alluded, would it not be an improvement upon your plan, if savings banks now established in Ireland were allowed to lend their funds to the grand jury for these public works?—I think it would; but the savings bank being limited to deposits of 50*l.*, my object

object is to extend the principle by the issue of debentures for 50*l.* and upwards, which will be held by shop-keepers and the principal farmers of each district.

1104. But you would call the aids of loans from the savings banks in this respect?—Yes, by allowing the trustees to invest their funds in the county debentures, if they preferred them to the Government stocks.

1105. The Committee understand that you would invest grand juries with the power, which they do not at present possess, of raising money by presentment for the erection of piers, the improvement of harbours, the deepening of rivers, the embankment of lands, and for various other purposes of a useful public character?—Yes, but always subject to the control of the Treasury, and of the Commissioners for promotion of Public Works.

1106. Would you not limit the sums they had to borrow with reference to the annual income of the county?—Undoubtedly; and I again repeat that unless an efficient check shall be established to prevent an over issue of such debentures, I should be the first to oppose such a system. It is on that account that I propose that no debentures should be issued unless upon a warrant from the Lords of the Treasury; and I should also require that each county should, annually, submit their accounts to Parliament.

1107. Is your preference of the Board of Works as a means of executing extensive lines of road founded upon an observation of their having maintained such roads in a better state of repair than roads which are under the care of the respective counties in Ireland?—The roads under the charge of the Board of Public Works, which I travelled last summer, were in a much better state of repair than those kept up by the presentment system, or even by the Turnpike Commissioners; and so far as my opinion is of value, I do not hesitate to state that I should wish to see all the roads now managed by turnpike trusts, as well as the other main roads throughout Ireland, placed entirely under the control of the Board of Public Works; and I should give to that Board power to lay out new or improved lines according to their discretion, without being controlled by grand juries.

1108. In short, the effect of placing these roads under the Board of Public Works would be to secure unity of purpose and good execution throughout the whole?—Undoubtedly, the selection of the line should be left as much as possible with the Board of Works, independent of every species of local influence, and when they selected and surveyed any particular line of road, they should have authority to send in a presentment to the next Judge of assize; and if no traverse was taken, or that a verdict was found in favour of the presentment, I should then require that the Judge should fiat the presentment without the intervention of the grand jury.

1109. Your preference of the Board of Works to grand juries has reference to the present constitution of grand juries; would your objection to grand juries be equally strong if measures were taken to improve their constitution for establishing a better administrative system under their control?—I think it scarcely possible to improve the grand jury system so as to prevent local influence bearing too much upon all local improvement. It may be desired by a class of gentlemen who would serve upon a grand jury in one county to have a great road taken in a particular direction, while their neighbours of the next county desire it to be taken in an opposite course; the result usually has been a compromise, through which individuals are benefitted at the expense of the public interest. If the power of laying out the great lines of road is vested in the Board of Public Works, they being a Public Board and subject to the control of Parliament, and placed above the reach of local influence, I should confidently anticipate a great improvement of our present system.

1110. Are not the parties locally interested those to whom the making and keeping up of the road on the best footing is an object of the greatest moment?—I admit that they are the persons more immediately interested in the management and repairs of their county roads and other works, but my experience justifies me in stating that Public Works are too often made the instruments of individual objects through the influence of leading individuals serving as grand jurors.

1111. Is the system which you recommend adopted in France?—Yes.

1112. Is it found there that a central administration has been productive of as much benefit as you suppose would arise from it?—I am not sufficiently acquainted with the condition of Public Works in France to be able to answer that question.

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1113. You would submit the accounts of the expenditure to the review of the grand jury, in order to enable them, in case any thing appeared to them exorbitant or to bear the character of jobbing, to interpose a check?—Undoubtedly, the proceedings of the Board of Public Works should be as much as possible open to public investigation and control.

1114. Are you not aware that at present considerable dissatisfaction has been found to prevail in cases of several of the grand juries when they have been called upon to present upon the fiat of the Judge large sums of money in repayment of the expenditure by the Board of Works for the maintenance of the roads within the county, they having no power of inspecting or in any way controlling the accounts or that expenditure?—I am not aware of any.

1115. Have you had occasion to observe that complaints are more frequent now than they were formerly about the expense of the roads?—Since the appointment of the county surveyors a new system of road making has been established, of which I entirely approve. They must be made (in order to receive the approval of the county surveyor) in the best, instead of as formerly the worst, manner; the consequence is that the present expense is considerably increased; I consider it but a temporary charge consequent on the change of system, which requires a larger outlay in making the roads permanent, and which will ultimately tend to economy. But even the last Grand Jury Bill in many respects requires amendment. The time necessarily occupied in carrying a new road, though ever so useful, is too long, and is practically an impediment to their construction; it takes nearly 18 months to get through all the necessary forms to open a new road, and six months more to gravel and complete it.

1116. Then it is your opinion, that the Grand Jury Act of the year before last requires a considerable alteration in its reference to Public Works?—Yes; it requires an extension of powers, so as to embrace many useful objects, and that the works should be more promptly executed. I should also desire to call the attention of the Committee to the manner in which the financial affairs of the counties are conducted. In my judgment we should put an end to the expensive system of collection and county treasurers. The treasurers have large balances of the public money at all times in their hands, the interest of which forms the chief source of their emolument; hence the public money is used for private profit. I proposed, while the last Act was under consideration, that through the aid of the banks now established in almost every county, that public money should be made productive, and drawn out from time to time for public use by two members of the County Finance Committee, countersigned by the secretary of the grand jury; from such a system I should expect that, instead of allowing the treasurers to make a profit from the public money, that the public would make a profit by getting interest on their balances from the banks; but it would be unjust towards the present treasurers of counties (as they were only lately called upon to give security to a large amount, and in many instances at great expense) to deprive them of their present advantages; but as they drop off, no new treasurer should be appointed.

1117. The finance committee of which you speak, you would recommend should sit from assize to assize, and be a permanent body; would you intrust such permanent committee with the superintendence of the Public Works of the county?—I would suggest, that at each assize there should be a selection of a finance committee, such as now appointed, to manage the gaol; they should be re-appointed at each ensuing assizes; they should not be a continuous body.

1118. Would you consider it desirable that smaller executive committees should be appointed for baronies or districts within the county?—I should recommend sub-committees to be formed from the magistracy at petty sessions to act for each barony; and by every possible means I should endeavour to provide for cash payments for all public works, so as to pay the labourers every Friday, to meet their Saturday's market.

Veneris, 15° *die Maii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

James Loch, Esq., a Member of the Committee, further Examined.

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1119. IT has been suggested to the Committee, that it might be desirable that a power should be given to tenants for life in Ireland to charge the estates with a portion of the expenditure required for making permanent improvements, upon the same principle as is now done in Scotland under certain Acts which were stated to the Committee; have you any acquaintance with cases in which such improvements have been beneficially made?—The Act alluded to is the 10 Geo. III. c. 51., and is better known in Scotland by the name of the Chief Baron Montgomery's Act; it is a very useful statute; it has been, with all its defects, very useful to Scotland, and has enabled many heirs of entail to execute improvements which might otherwise never have been made. It has been acted upon in a variety of cases. I have taken advantage of it to the full extent of its powers in my own case, where I am a trustee under a marriage settlement, whereby a considerable estate in Scotland is vested in me, and in which instance it would have been impossible to have executed considerable improvements, namely, in repairing the mansion-house and in building farm-houses and other necessary buildings connected with the improvement of the farms, in enclosing, planting, draining and so on, unless such a power had existed; the proprietor of the estate having succeeded to it under the strictest limits of a Scotch entail, and he was so circumstanced that it would have been impossible to execute the necessary improvements without such a power; and if such a power had not been acted upon, great injustice would have been done to the younger children, by applying the surplus profits of the estate to the improvement of that which by the entail must have all gone to the eldest child. But advantage was taken of the Act alluded to, and all the improvements have been charged upon the estate, and that amount of expenditure so charged has been settled upon the younger children; that is by no means a solitary instance, for in many other cases which might be named the same course has been pursued.

1120. In applying a similar law to Ireland, are there any inconveniencies connected with Ireland which you think it would be impossible to avoid?—It ought to be borne in mind, that the law of entail as it exists in Scotland, materially differs from the law of entail as it exists in the other two parts of the United Kingdom. In Scotland an entail cannot be got rid of in the same manner that it can be got rid of either in England or Ireland; it therefore became absolutely necessary that some power should be vested in the heir of entail in possession, or, in other words, by which the tenant for life in Scotland should be empowered to make such improvements, and to charge them as I have described, otherwise the improvement of the country would have been entirely checked; and I believe it is generally acknowledged by all who are intimately acquainted with this part of the country, that the Act has been very beneficial in its results up to a certain extent. There can be no difficulty, as it appears to me, in applying the same condition to a life estate in Ireland. The only question would be, whether the same necessity for doing so exists in consequence of the power of docking the entail from time to time which exists there, when the power of charging in favour of improvements might then be had recourse to, and other powers obtained, suited to the circumstances of the estate and the condition of the family; and in this case the law of Ireland appears to me to possess an advantage over the Scotch statute, inasmuch as the latter has a very early limit to its operation, in consequence of the amount which may be so charged on the entailed estate being confined to four years' free rent for improvements, and to two years' free rent for repairs to the mansion-house. In each case one-fourth of the amount of such outlay is paid by the heir of entail in possession, and the remaining three-fourths only is chargeable on the estate. I see no difficulty,

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however, in that being done, provided it should be thought expedient to grant them such a power; at the same time I am no judge of what sort of machinery could be applied in Ireland, in order to ascertain whether the improvements were such as ought to be made, and whether they were likely to be beneficial to the estate, and in what manner they might be made available securities, either in favour of younger children or for any other purpose that might be deemed advisable. In Scotland the heir of entail in possession, in order to avail himself of the benefits of the statute, must give notice in writing of the nature of the intended improvements to the remainder man next after any heir of his own body, three months before they are begun; but it must be remembered, that from the nature of a Scotch entail, such remainder man has a substantial vested interest in the estate, which cannot be defeated; he has an interest, therefore, to see that such improvements are likely to prove beneficial to the property, and that they are substantially executed. Not so in an estate tail in England or in Ireland, for, generally speaking, the interest of such a remainder man is too contingent to make him care whether such improvements are either the one or the other, the probability being that the estate tail is put an end to by the tenant for life and the next tenant in tail cutting off his future and contingent interest entirely. This distinction would have to be attended to.

The principle of the Chief Baron Montgomery's Act has been extended to other similar cases by various statutes; for example, by the 1 & 2 Will. IV. c. 43., being the general Turnpike Act of Scotland, heirs of entail in possession may charge their entailed estates, to the amount of one year's rent, with any subscription towards making any Turnpike Road beneficial to the estate; and in like manner in certain counties in the North, they were enabled by other Acts of Parliament to charge their entailed estates with the assessments laid upon them by the Commissioners for making Highland Roads and Bridges; and, in conclusion, one important remark must be made, that however beneficially this power operated at first, it has latterly been attended with many drawbacks, as it has loaded these entailed estates with a permanent debt that cannot be got rid of; this is no doubt occasioned by the nature of the Scotch law of entail, to which the Irish law would not be subject. This inconvenience was attempted to be met, in the case of the Highland Road assessments, by giving the heirs of entail a power of sale to pay off such incumbrances. If, therefore, such a power as that contained in the Scotch statute is less required in Ireland, it would, if obtained, prove ultimately less injurious to succeeding proprietors and the country.

William O'Brien, Esquire, a Member of the Committee; Examined.

W. O'Brien, Esq. M. P.

1121. ARE you acquainted with the administration of the Grand Jury laws in Ireland?—I have studied them with some care, and have had the opportunity of witnessing their administration in the counties of Clare and Limerick.

1122. Have you any suggestions to offer by which, in your opinion, the present Grand Jury system can be rendered more efficacious in the promotion of Public Works in Ireland?—Having had an opportunity of observing the defects of the present Grand Jury system, I have been led to consider in what points it is susceptible of improvement; and as above 400,000*l.* per annum is expended annually upon Public Works in Ireland under the control of Grand Juries, it may not be altogether foreign to the inquiry in which the Committee is engaged to receive suggestions as to the mode in which this large expenditure can be placed under the most economical and effective management.

The first alteration which I consider necessary in the present Grand Jury system is a change in the constitution of Grand Juries and of Road Sessions, by which they shall be rendered representative bodies, instead of being, as at present, nominated by individuals. Until this change be made, Grand Juries will never enjoy the confidence of those who pay the county cess, nor will there be that sort of responsibility which ought to be required from all those who are entrusted with the control and administration of the money of others. To the want of this representative character may be attributed the universal belief which prevails, that Grand Juries are swayed by motives of a partial and personal kind, and that the public money has been misapplied for the benefit of individuals. The same feelings which have raised so great an outcry against corporations, operate with equal force against the nomination system in the case of Grand Juries. I am of opinion, therefore, that the criminal functions of Grand Juries ought to be separated from their

their fiscal duties, and that the latter should be entrusted to a representative body, which Mr. Wyse and Mr. Musgrave have proposed to call a County Board.

The next alteration which appears desirable is, that the powers of Grand Juries, or rather, of County Boards, should be considerably enlarged. If the County Boards were properly constituted, there is no sort of public expenditure of a local kind which might not be beneficially placed under their control. They should be authorized to raise money for many descriptions of public works to which the powers of Grand Juries do not at present extend, such as the construction of piers, canals, railways, the deepening of rivers and the improvement of harbours. They might also be authorized, if a system of poor laws were adopted, to raise money for the reclamation of waste lands by the establishment upon such lands of poor colonies similar to those of Holland.

The third alteration required is, that a more permanent character should be given to the County Boards than that possessed at present by Grand Juries, which, from their fleeting constitution, are not adapted to the discharge of any duties of a continuous nature. With this view the County Board ought to be elected for a definite period—say for a year—and they should have the power of naming executive committees, with authority to act in the intervals between the meetings of the County Boards. These committees should be entrusted with the superintendence of the various branches of the county expenditure, in the same manner as the management of the gaol is now confided to a board of superintendence. If it should be thought expedient to enact laws for the employment of the able-bodied poor, the intervention of such committees would be most useful in carrying this object into effect. A committee being appointed in each barony for the purpose of superintending all public works within the barony, a power might be given to the parochial administrators of the poor laws to send any able-bodied labourer applying for relief to the baronial committee for the purpose of being employed upon the public works in progress under its superintendence. In such case the parish sending the labourer to the baronial committee for employment should be bound to contribute towards the relief of the county rate a portion of his wages during the time that he was so employed.

I have long thought that the office of county treasurer might be abolished, and that the large balances now in the hands of the county treasurers should be placed in the county branches of those banks, of which the stability is unquestionable. By the abolition of the office of treasurer, the salary of these officers would be saved, the counties would receive an interest on their deposits, and the public money would be placed in a state of greater security. All the duties at present performed by the county treasurer might hereafter be performed by the secretary to the Grand Jury, whom a small increase of salary would amply compensate for the additional trouble. This change, however, ought not to affect the present treasurers of counties.

By the proposed appointment of permanent committees of superintendence, much of the present machinery of the Grand Jury system would be rendered unnecessary. In particular, the second meeting of the Special Sessions required by the Grand Jury of 1833, and which has been productive of nothing but inconvenience, might be avoided.

The suggestion made by Mr. Mahony, that Grand Juries or County Boards might be empowered to issue debentures in the nature of Exchequer Bills, appears to me to deserve adoption.

There are various other matters of detail into which it would not be right at present to enter, but which might be engrafted with advantage upon any Act for the amendment of the Grand Jury laws. In order to frame a perfect measure, it would be necessary to consolidate into one Act the various laws now in force relative to the powers and duties of Grand Juries. It would also be desirable to couple with such an Act a variety of collateral measures, having for their object the internal improvement of Ireland. The organization afforded by such a body as the Irish Grand Jury or County Board, might, if it were well constituted, be made most useful in carrying into effect a great number of objects of public utility; and I may be allowed to express a hope that the Irish Government will be prepared to bring forward, early next Session, a series of well-digested measures, having in view the employment and relief of the poor and the general improvement of our local institutions.

1123. Have you any suggestions to offer respecting the reclaiming of waste lands?—I would only wish to express a strong opinion in confirmation of the suggestions which

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which were made by Mr. Mahony, that there should be a power given to the proprietors of lands which are tied up by settlement of laying out money in the improvement of their estates, under proper check and control, and of charging the inheritance with a certain portion of the expenditure required for these improvements. There might also be coupled with any system providing for the employment of the poor, a power to Grand Juries or to County Boards of raising money for the purpose of establishing poor colonies of the nature of those in Holland, for the purpose of reclaiming waste lands and giving employment to such individuals as could not find work in their respective parishes. I think the description of land which the Grand Juries, under these circumstances, might be empowered to purchase, ought to be such as does not exceed in value a certain yearly rent. The Grand Juries should have the power of appointing permanent committees to superintend such colonies, and eventually, the committees under the sanction of the Grand Juries, should have the power of selling small allotments of these lands to such of the industrious poor as had by good conduct and frugality during their residence in the colony been able to obtain a sufficient sum of money to pay the original purchase money with a fair proportion of the expense incurred in the reclamation of these lands.

Colonel *John Fox Burgoyne*, called in; and further Examined.

Col. *J. F. Burgoyne.*

1124. ARE you of opinion that any beneficial alteration could be made in the management of the loan fund for Public Works in Ireland?—The Commissioners have frequently consulted upon the arrangements of the loan fund, and we are of opinion that a modification might be made in them to great advantage.

The operation of the provisions of the Act as it at present stands is, to advance 500,000*l.* in Exchequer Bills in loans, at interest sufficient to cover the expense; the principal being re-issued in new Exchequer Bills, as it shall be repaid, and old bills to the same amount paid off; so that there shall never be more than the 500,000*l.* outstanding on this account, either in debts or in Exchequer Bills.

The public becomes merely the guarantee for the value of the Exchequer Bills and their interest; and is intended to be secured from loss by the stipulations in the Act.

By the system as now in operation, there is an apparent gain by the public to the amount of the difference of interest taken from the parties borrowing and that paid for the Exchequer Bills, but that is not the case; for every repayment of principal reduces the interest received, while that paid is going on till the Exchequer Bills are paid off.

Thus, suppose an advance be made to a Grand Jury of 10,000*l.* at 4 per cent.; the Exchequer Bills bearing an interest of 3 per cent., there would appear to be a profit on the transaction of 100*l.* per annum; but that description of loans being necessarily paid off in ten years, and frequently voluntarily in five; let us suppose the latter; then 2,000*l.* being repaid by the end of the first year, and 2,000*l.* more by the end of the second, the interest received will be successively 400*l.*, 320*l.* and 240*l.*, making in the three years (when the Exchequer Bills are paid off) 960*l.*; that is, only 60*l.* over the amount paid, instead of giving 300*l.* gain, as is commonly supposed.

The same effect is more or less in operation in almost all the loans.

By the system which I would suggest instead, the public might be not only equally secured from loss, but even a profit might be expected from the operation, provided such profit, as is reasonable, should be entirely appropriated to the encouragement of the same useful objects.

The proposition is, that the Exchequer Bills should bear uniformly an interest of 2*d.* per day, or 3*l.* 0*s.* 10*d.* per annum.

That advances should be made at from 3¼ to 5 per cent. interest, according to the circumstances of the case.

That sufficient funds should always be reserved and forthcoming to pay the interest on the Exchequer Bills, and that the whole of the remaining principal or interest received be again immediately re-issued in advances on account of loans, the Exchequer Bills being from time to time renewed instead of being paid off.

By this means those Bills will, from an assurance of renewal, be more valuable and useful, and the whole fund will be in a constant state of activity and productive. There will never be more than the proposed original amount (whatever that may be) in Exchequer Bills outstanding at a time. There will be a greater extent of funds available for loans by the more rapid circulation, and the public will have

even

even better security from loss than at present, as it may be hoped that the excess of interest and the constant fructification of the whole of the funds will more than cover the losses that must occasionally occur in spite of every precaution, and that the fund will rather increase than otherwise.

Such a system will have the additional benefit of removing any impression of undue advantages being taken in favour of Government in the terms required from the borrowers, since the profit, if any, to whatsoever extent, will be appropriated to the advantage of the country in forwarding similar objects of utility.

This plan would contemplate the gradual reduction of all the Exchequer Bills issued at 2½*d.* per day interest, as they shall fall due, to others at 2*d.*

It might be advisable that the Board should in all cases negociate the Exchequer Bills, and make the advances in money, by which means the amount of premium would be added to the general fund, the operation would be simplified to the parties borrowing, and the advances could readily be made in any small or odd sums required.

In this way loans might be made with advantage to the full extent of the demand, subject only to a restriction in the issue of Exchequer Bills to an amount not exceeding what might be advantageous to the monied and trading operations of the community.

Should the fund be found at any time to exceed permanently the demand upon it, an amount in Exchequer Bills might be bought up with such excess, in order to save the interest that would otherwise be paid without a return; and, on the other hand, should the demand for loans exceed what might be thought right to issue in Exchequer Bills, it is presumed that some standing fund which the Government could command at about the same interest of 3 per cent. might be appropriated to make up the requisite amount.

1125. What do you consider to be the amount of the fund that would enable you to supply the applications made to you from time to time for loans?—We have found by experience that 500,000*l.* was not adequate, but I consider that 1,000,000*l.* would suffice for the purpose; the working of a million of money in the way I propose, I think would produce about 70,000*l.* per annum for expenditure upon public works.

1126. Do you think you would always have 70,000*l.* ready for applications during the year, if you had a million?—Precisely.

1127. Upon what do you found that opinion?—Upon the average rate of repayments hitherto; some are made in five years, some even in less, and some in more. I made a rough calculation, supposing the whole million to be expended at the same rate as the 500,000*l.*, that the repayments would come in at about that amount of 70,000*l.* a year.

1128. Will that 70,000*l.* a year answer the demand upon you for public works, in your opinion?—After the expenditure of a million, I think it would.

1129. Would you expend the million immediately or by instalments?—It has taken three years to allot 400,000*l.* in loans for public works, and I think it might take three or four years more to distribute the rest.

1130. And after that you think the repayments would be according to the rate of about 70,000*l.* a year?—Yes.

1131. Would it not be a good sign, a sign that the country was improving, if the demands for loans of this description were to increase beyond a million?—No doubt.

1132. The million would not be lost to the public, it would still remain a loan to be repaid when it was no longer wanted?—It would be out in good debts upon good security.

1133. And Parliament would have the power to claim it at any time?—It might be resumed at the expiration of the several terms stipulated for by the borrowers.

1134. Do you contemplate in that million any money to be employed in the improvement of the navigation of the river Shannon?—Certainly not; I consider the Shannon a great separate work of itself, and entitled to a separate consideration altogether.

1135. Do you not think it entitled to national consideration?—I think it peculiarly so.

1136. In your opinion, ought not the funds applied for on what is called the "moiety grants" also to be enlarged and increased?—I think all money given for useful public works in Ireland is attended with the greatest possible benefit to the empire at large.

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1137. Has not the money you applied under the provisions of the Act in the way of grants, and advancing a moiety for making roads, been productive of great advantage?—Yes, I consider of greater national advantage than even the loan fund.

1138. Would you not increase the amount to be so advanced, and would you not increase the objects and purposes for which the money should be advanced?—The 50,000*l.* already allotted to grants is now exhausted. I would enlarge the objects to which it is applicable, and, as I said before, I think it would be more useful to replace that than even the loan fund.

1139. To what amount?—To another 50,000*l.* for the present.

1140. Would it not more tend to the interest of the country to lend money at a low rate of interest with a long period of repayment, than to ask for a gift from Parliament, unless in such cases where individuals have advanced a great deal of money?—There are many kinds of work for which no loans will be demanded, which are extremely useful, and which can only be carried into execution by grants.

1141. Name one?—The roads through extensive uncultivated districts; there is no party will come forward to contribute towards them in any way, and yet they are more useful than any other species of work.

1142. Why?—They are more useful, because they add to the empire profitable and excellent land, to the amount of hundreds and thousands of acres, as much as if they had arisen out of the bottom of the sea.

1143. Are there not many districts in Ireland capable of much improvement, requiring at this moment such roads to be made, and having no other obstacle but the want of means?—There are many without any existing means for carrying the improvements into execution; no party is sufficiently interested to come forward; the interests are so blended and so limited that no person sees the particular advantage he would gain, and it is only by Government that it can possibly be done.

1144. Do you think there are obstacles which occur in those districts that do not occur in England, so as to prevent the making of roads?—No districts in England or Scotland can be compared with them at all; from the extent of the wastes and the mixture of interests, nobody can foresee who will derive any considerable advantages from the improvements; the landlord or proprietor for many years would get little or nothing from them, yet the gain would be very great to the country, and generally to the empire.

1145. Do not those difficulties occur in a great degree from the nature of the tenure in Ireland, the remoteness of the interest of the landlord, and the precarious tenure of the occupying tenant?—My idea is that nobody gets the benefit of the improvement for many years, but the immediate occupier, who for a long period could afford to give no rent, or only a nominal one.

1146. Then there would not be any return of capital to the proprietor of the estate, to induce him to lay out a sum of money on such roads as you mention?—There would not, except remotely; the only parties who would gain by it would be the Government, by the improvement of the revenue, and the poor people who become the occupiers, and who would be from a class having now hardly means of subsistence.

1147. Who have no means, consequently, to contribute to such improvements?—Who have no means, but on the contrary, are in great want of such an opening for increased employment.

1148. Do not difficulties also arise in Ireland from the embarrassed state of some of the landlords to whom these districts belong?—In Ireland I believe more than in most countries, the landed proprietors are without the means of assisting to promote improvements, that would be even profitable to their estates.

1149. You have mentioned that the immediate gainers by the formation of the roads, would be the peasantry of the district, who occupy little lots of land on the side of the road; upon what terms would they become possessed of those lots?—They could only have them by the leave of the proprietors of the land.

1150. Are you aware how lots of land are taken into cultivation on the side of the roads?—They are taken on different terms, from different landlords; some taken upon hard terms, and some which I think is the better policy, on easy terms, giving the tenant a greater interest in the improvement he shall effect, but eventually benefiting the landlord.

1151. If the public are to be called upon to make grants to a large amount for the purpose of opening these uncultivated lands in Ireland, would it not be fair that the public should stipulate with the owners for some favourable terms to the peasantry, who will proceed to cultivate the land and lay out their labour on their land

land in the neighbourhood of the road; as for example, by allowing them to have a lease, at a nominal rent, for a term of years, it being for the benefit of the peasantry in a great degree that we propose to make the grant?—Any regulations that would secure the best possible provision for the peasantry would be very desirable, but I do not quite understand how you could legislate for such a purpose.

1152. Are not the persons who occupy lands in the neighbourhood of these roads entirely at the mercy of their landlords, and might they not be turned out a year after, though they may have laid out their labour upon the land?—That is the case, I believe.

1153. Is that universally the case?—I believe, in point of fact, in many cases it is even worse, and that a high rent is put on land thus settled upon; a rent which it is impossible can be paid out of the produce, but has to be sought from other sources; it consequently usually gets into arrear, and the unfortunate man is completely at the mercy of his landlord. I do not mean to say that is the general case.

1154. In your opinion, would not that mischief be very much obviated, and very much lessened, if the number of roads was increased in Ireland, and thereby the quantity of land brought into cultivation increased?—No, I do not know how that would influence the conduct of the landlord.

1155. Would there be the same demand for land?—There is such a mass of population without provision now, that one can hardly say when there would not be a great demand for land.

1156. Is the committee to understand that you mean to say that all the tenantry in Ireland are at the mercy of their landlords, who are prepared to take every advantage of them?—Decidedly not. I mean it as an exception, but one that very frequently occurs.

1157. Are not the advantages which you anticipate as likely to result from the general introduction of new lines of road much more extensive than those which would result to the occupiers of land upon the immediate neighbourhood of the roads; is it not rather to the general effect produced on the prosperity of the country than the immediate occupying tenants on the line of the road?—I anticipate benefit to a poor class of occupying tenantry, and the advantage of increased resources and prosperity to the country.

1158. You do not confine the advantage to what may be called the consideration of the interest of those who live on the particular line of road; but that interest would only form one part of the advantage gained to Ireland?—The introduction of these roads would produce a great improvement over the whole face of the country, but I consider that the direct advantages, if fairly distributed, would go entirely to the occupiers, giving for the first ten or twenty years a very small benefit to the landlords, after which they would get the full advantage of the improvements.

1159. Would there not be a difficulty in empowering the Board of Works, before opening a road across a tract of distant country, to require the owner of the land to grant out lots of land at the side of the road, when finished, to tenants upon lease for a term of years at a moderate rent?—I am contemplating lines of road twenty or thirty miles in extent. It would be difficult to ascertain the boundaries of properties where roads are made over such an extent of waste as that.

1160. Do you mean to give the Committee to understand that Government makes roads through these large districts of country without having obtained from the proprietors of those districts of land permission to make these roads?—In the districts contemplated the undertaking is too great a boon to require any permission. Every body may gain, no one can suffer.

1161. Do they not know the proprietors?—In many cases, where they traverse large tracts of bog and wild parts of the country, they do not know the proprietors; there is one class of grants of a moiety of the expense, the other half being provided by Grand Jury assessment; in that case, the presentment not being traversed, implies the authority of the proprietor to carry the road through his ground. Where the roads have been made by the entire grant of Government money, which has been usually in times of distress, as in 1822, when there was a great demand for labour for the population, who were starving, the works were begun without many inquiries as to the property, or any remonstrance made against them. Those works have since been finished, or are in progress of being finished, by a grant of the last Session of Parliament.

1162. Your objection, then, consists in the difficulty of finding the legal owners and

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and making terms with the legal owners of the improved lands; but would it not be possible for the Legislature, in making these grants, to declare that the settlers on the land at the road-side should be entitled to certain favourable terms from the owner, whoever he might be?—I think it would be a most desirable regulation if it could be carried into effect; but the road would go through such a variety of lands, some more and some less capable of improvement, that what might be reasonable in one case would be a hardship in another, and it would be difficult to define in any regulations precisely the ratio of the terms to be required.

1163. Would it not be interfering with the rights of property?—I do not know that it would be an unreasonable interference. If property is made available solely by public expenditure, the public would have some right to stipulate for certain terms as the condition.

1164. You say, if it could be done without difficulty, you think it would be desirable; what are the difficulties you contemplate?—I think they would be very great; the part near the cultivated ground would be worth some kind of rent earlier than that far off in the interior, and ought to have different terms. Varieties of soil and situation would make the circumstances so different that no general rule would apply.

1165. Could not some local tribunal, commissioners or petty sessions, or some other local authority, determine the value of the rent that should fairly accrue from time to time to the landlord on this improved land, to prevent the tenant being robbed, by ejectment, of the value of the improvement?—If such a regulation could be made to work, it would be very desirable and very proper, but I think it would be difficult.

1166. Should you be afraid to trust the working of it to private arrangement, to the natural arrangement between the occupier and the landlord, or should you think the interference of some tribunal necessary?—I think some interference would be very desirable, but it appears to me very difficult to effect it.

Lunæ, 18° *die Maii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne*, called in; and further Examined.

Col. *J. F. Burgoyne.* 18 May 1835.

1167. HAVE you any further statement to make to the Committee?—Some questions having been put to me during the former examination on certain matters of fact, which will be best shown by detailed returns, I beg leave to lay before the Committee the following Papers:—

1. A Statement of all the Loans made by the Commissioners up to the 1st January 1835, showing the amount of Repayments on account of each.
2. Aggregate Statement of the Loans and moiety grants classed in the order of the description of works for which they were advanced, including those approved of, but not definitively arranged.
3. Return of the Expenses incurred by the parties for the investigations by Engineers on the part of the Board.
4. Extracts from a Report on the small Fishery Piers on the coast.
5. Particulars of the present state of the Loans made by the late Commissioners under the 57th Geo. III. and subsequent Acts.

(*See* Papers delivered in to the Committee, Appendix, No. 3.)

John Strettell Brickwood, Esq., called in; and Examined.

J. S. Brickwood, Esq.

1168. ARE you secretary to the Exchequer Loan Commissioners for Public Works?—I am.

1169. When was the first advance made by Government for the purpose of loans for Public Works?—In June 1817.

1170. What was the amount then advanced?—A million and a half.

1171. Has that grant been subsequently increased?—It has on several occasions.

1172. To what amount?—To the amount in all of 5,300,000*l.* I ought to say the allotment was to the extent of 5,500,000*l.*, of which, 200,000*l.* was deducted in the year 1827 to be applied to Ireland, under the direction of the Exchequer Loan Commissioners, leaving 5,300,000*l.* to be applied for Great Britain.

1173. Have

1173. Have you advanced the whole amount to persons desirous of borrowing for Public Works?—Toward the close of the last Session one million, making up five millions and a half, was allotted, and that chiefly remains on hand, not yet issued.

1174. The rest is issued?—Yes, issued, or granted ready to be advanced on the completion of the securities.

1175. What was the nature of the Public Works on which such sums have been expended?—I might mention every kind of works; canals, drainage, public roads, harbours, gaols, &c.

1176. And has such application of money been found beneficial?—Very extensively beneficial; I believe universally allowed to be beneficial.

1177. How much of the sum so advanced has been already repaid?—As near as my memory serves me, 1,900,000*l.* I have a memorandum which will tell correctly. The first allotment was by the 57 George 3, chap. 34, one million and a half. The next was 3 George 4, chap. 86, two millions. The next was 1 & 2 William 4, chap. 24, one million. And, lastly, by the 4 & 5 William 4, at the close of the last Session, one million; 200,000*l.* was deducted, to be allotted for Public Works in Ireland, in the year 1827. The total amount for distribution in Great Britain was 5,300,000*l.*; and there is appropriated of that sum 4,561,250*l.*, leaving unappropriated 738,750*l.* The total of applications decided for Great Britain is 12,118,774*l.*; on which applications there have been apportioned for canals, rivers, drainage, 1,298,100*l.*; harbours, docks, 312,000*l.*; bridges, ferries and Thames Tunnel, 464,300*l.*; the money for the Tunnel being advanced under a special Act of Parliament.

1178. What was the amount advanced for the Tunnel?—Thirty thousand pounds has been advanced; and a further amount of 216,000*l.*, apportioned to be advanced under certain regulations, if authorized from time to time by Treasury warrant. There has also been advanced for fisheries 33,700*l.*; water-works, 27,000*l.*; roads and railways, 544,800*l.*, and 419,600*l.*; together, 955,400*l.* Improvement of cities and towns, 701,050*l.*; collieries and mines, 303,700*l.*; churches and parish relief, 90,000*l.*; colleges, 108,000*l.*; law courts, gaols, asylums, &c. 267,900*l.*; total, 4,561,250*l.*; interest received, 867,086*l.* 15*s.* 10*d.*; principal, 1,982,131*l.* 9*s.* 11*d.*; principal outstanding, 2,305,218*l.* 10*s.* 1*d.*; current average rate of interest accruing on the loans, 4*l.* 2*s.* 9*d.* per cent.; current expenses of the commission, under 3,000*l.* per annum; current difference of interest receivable on loans and payable of Exchequer bills, 30,000*l.* per annum, and upwards.

1179. Have any losses been incurred in respect of those advances?—There have been some losses; I am not at this moment prepared to say the exact amount, but nothing but what is far more than covered by the current profit of the commission.

1180. What do you mean by the current profit?—The difference between the rate of interest paid by Government on the Exchequer bills, and the interest paid by the borrowers on the loans they receive.

1181. What is the rate of interest paid by the borrowers?—There is about 760,040*l.* at five per cent. interest per annum, and 7,775*l.* at four-and-a-half per cent.; 1,193,150*l.* at four per cent.; 94,300*l.* at three-and-a-half per cent.; 140,100*l.* at 3*l.* 0*s.* 10*d.* per cent., the current rate of Exchequer bills, and 38,900*l.* at three-and-a-quarter per cent.; making an average of 4*l.* 2*s.* 9*d.* per cent. payable on the loans.

1182. Is not the benefit so gained much more than sufficient to answer the losses that have been sustained?—I consider it far more than sufficient to answer the losses.

1183. Then do you think it was necessary for Government to stipulate for so large an interest?—Not merely for the bare protection of the public money; at the same time, it is to be borne in mind that losses to a greater extent might have occurred, and such liability ought to be amply provided for by the surplus interest.

1184. Does not experience now teach you that the interest so obtained has been more than sufficient to cover all the losses?—It has led to that conviction.

1185. And also the expense of management?—And also covering the expense of management. I should say further, that the current profit now is considerably more than 30,000*l.* a year, and the current expenses of our commission are less than 3,000*l.* a year.

1186. So that, in point of fact, Government are money-lenders and great gainers by the loans?—Yes, they are great gainers by the loans.

1187. In your opinion, if sufficient precautions were taken, as I suppose might be

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be taken against losses, would not a much lower rate of interest be sufficient for the Government to ask in respect of loans for public works?—Doubtless a lower rate of interest might be taken safely; I would not say a much lower rate.

1188. Do you think that Government ought to require more than they themselves pay for the money so advanced?—I see no objection to it; I think they ought, for this reason: If the Government capital were to be employed at a low rate of interest, it might interfere with the employment of individual capital throughout the kingdom, and leave bankers' capital and the capital of other monied individuals unemployed, those individuals not being able to advance the money and take repayment by instalments so conveniently as the Government are enabled to do.

1189. Your observation, then, applies to English loans?—It does.

1190. Where capital is overflowing?—Yes; I do not intend to extend the observation to Ireland.

1191. Would not, in your opinion, one per cent. over and above the interest paid by Government be sufficient for Government to require to cover all losses?—It seems requisite that it should be borne in mind that it is more easy to reduce interest than to raise it. The interest of money generally is now at a low rate, but circumstances might arise to increase the general rate of interest. It appears to me rather desirable to keep the interest a little higher than is necessary at first, in order to give an opportunity of lowering it if expedient, considering that you might not be able easily to raise it, if it were desirable.

1192. At what rate does Government raise money for the purpose of those loans?—Those loans are issued in Exchequer bills bearing 2*d.* per cent. per diem, which is 3*l.* and 10*d.* per annum, which Exchequer bills, at the end of the first year, are usually exchanged for the common Exchequer bills bearing interest at the rate of 1½*d.* per cent. per diem, which is 2*l.* 5*s.* 7½*d.* per cent. per annum.

1193. Why may not Exchequer bills be issued in the first instance at that rate?—Government have generally been desirous to keep the different kinds of Exchequer bills separate, to distinguish the Public Work Exchequer bills on the first issue from all others.

1194. Is there any reason for that?—I have never heard any satisfactory reason for that.

1195. That money might be borrowed at the rate of two-and-a-quarter per cent. on Exchequer bills?—I think so.

1196. Is there any difference in the premium?—There may be a difference of 4*s.* or 5*s.* per cent. occasionally, but not always a perceptible difference in the market.

1197. Do you negociate the Exchequer bills, and then advance a specified sum to the individuals borrowing, or do you issue the Exchequer bills in favour of the individuals borrowing, and leave the premium to them?—We never interfere with the negociation of the Exchequer bills; we deliver out to the borrower an order signed by three commissioners upon the officers of the Exchequer, who issue the Exchequer bills to the bearer of that order; we never issue the Exchequer bills.

1198. The parties borrowing are not accountable to you for the amount of the premium, whatever it may be, which they obtain upon the sale of Exchequer bills?—No, but by an arrangement made afterwards, we have recently made them so in some instances; in those instances where they have applied for the reduction of interest.

1199. Do not the monies repaid go into the Consolidated Fund?—Yes, first into the Bank of England, and then they are transferred into the ConsolidatedFund.

1200. You say you have 700,000*l.* now remaining?—Yes.

1201. Do you expect any further grant to be made when that is expended?—The intention of allotting that money was to apply a part of it for the purposes of the Poor Law Amendment Act, the extent of which cannot yet be foreseen; therefore it is not easy to say how much may be required for that and other purposes, nor what time may be occupied in applying the whole of it; but it seems likely that on the exhaustion of the present million, more will be allotted.

1202. Have advances been made from time to time whenever required, to the amount you have mentioned?—Yes.

1203. Do you find the interest in all cases punctually paid?—Generally, with few exceptions.

1204. To what extent have you found a deficiency in the punctuality of payment of the interest?—I am not prepared to answer that off-hand.

1205. In reference to the repayment of these loans, what time are you in the habit

habit of granting?—The Commissioners usually require them to be repaid by annual instalments within 20 years.

1206. Does the Treasury assume the power of extending that period?—There is an express enactment, giving power to the Treasury for the reduction of interest, and the extension of time.

1207. Has it been the practice to extend the period for repayment?—Not by any means the general practice; such extension has been granted in some few instances.

1208. In those cases in which the interest has not been punctually paid, it is obvious there can have been no payment of principal?—All monies received are applied first to the discharge of the interest, before the reduction of the principal; invariably.

1209. What is the nature of the security upon which you are in the habit of granting loans?—The mortgages of tolls, dues or other income, arising or to arise from the public works, and of all property connected therewith; and if the Commissioners are not satisfied of the adequacy of such security, they occasionally take personal bonds by way of collateral security.

1210. They do not take personal security, or the security of mortgages, on estates of individuals, except in those cases where the parties borrowing are to derive a particular benefit to themselves from the undertaking?—I would not say that distinction is always kept up. The following is not an unusual question, amongst others put by the Commissioners for Works, whether the applicants are to receive individual benefit from the undertaking or not, upon receiving applications for loans, "Will the parties be ready to give their personal bonds as a collateral security should the Commissioners not be satisfied of the adequacy of the tolls, dues or other securities offered?"

1211. It has been suggested to the Committee, that there would be no objection to Government doing as some of the companies in London are now said to do, namely, to advance money upon a fluctuating rate of interest, so as to meet the objections you have urged against the granting loans on a low rate of interest; do you yourself see any objection to such a course?—I see no objection to that course, but it is not applicable to the provisions of the Exchequer Loan Acts.

1212. Are loans made to defray the entire expenses of the public work, or what is the largest proportion of advance made?—There have been instances where the whole amount has been lent, but the usual proportion we issue is limited to one-third. If it be a work which has been undertaken as a speculation on the part of a number of individuals, such as a canal, we should require them to expend at least two-thirds of the estimated cost before we advance one-third; but for the building of a county session house or county gaol, which was clearly for the public benefit, without speculation being mixed up with it in the slightest degree, we have in some instances advanced the whole amount required, taking a security upon the county rates, which seemed to shut out all risk of loss under any circumstances.

1213. Would you not be equally satisfied with existing tolls or dues as county rates?—It depends upon the nature of the work.

1214. For example, docks and quays?—There speculation mixes up with it; they might be reduced by the necessary repairs, or a rival undertaking; all circumstances of that nature are taken into account by the Commissioners.

1215. As soon as the funds allotted for the purpose of the commission have been exhausted, have other funds been provided at once and without difficulty, or have you been ever without funds?—We have occasionally remained with a very small balance of funds in hand for a considerable time.

1216. Among the particulars of the loans you have mentioned, there are loans for fisheries; what description of loan are you in the habit of granting for the promotion of fisheries?—In the year 1817 distress existed in the country to a considerable extent; and one of the objects for instituting this commission was the employing the poor in any useful branch of industry; and one of the objects mentioned in the preamble of the Act was the encouragement of fisheries. It was only during the first three or four years that any loans were issued to fisheries, and they were all made repayable within a very short period.

1217. On what security were those loans issued?—Almost invariably upon personal security; the bond of the principal borrowers, with surety bonds.

1218. To what description of persons were the loans granted?—They were usually for small amounts, generally not exceeding 500 *l.* or 1,000 *l.*; they were fishermen, chiefly in Scotland, who gave their own bonds, with some responsible persons as their securities.

J. S. Brickwood, Esq.

18 May 1835.

1219. Is the Committee to understand there is no money at present outstanding on loans on account of fisheries?—There is none outstanding, with the exception of a very small sum, which is not likely to be repaid.

1220. What was the reason for your ceasing to advance such loans?—The objects seem to have been accomplished as far as it was deemed advisable at the time.

1221. Under the present mode of granting loans, the heaviest charges fall on the commencement of the work; it has been suggested to this Committee that it would be to the advantage of public undertakings if the repayment was effected by a uniform rate per annum throughout the whole time allotted for the payment; do you see any objection to such a course?— I see no objection to that course. It has been adopted in some instances by the Exchequer Bill Loan Commissioners in London.

1222. Do you think that that principle might be carried further to make it lighter in the beginning and heavier in the end, as for example beginning at five per cent. and ending at eight?—I fear it would be attended with this difficulty, that it would serve as an inducement to speculation, many persons undertaking works of this description, being desirous to postpone the payment to as late a period as they can; and it would increase the risk on the part of the lender.

1223. If the security was undoubted, would it not have the effect of encouraging parties to enter into such undertakings?—In some instances of large undertakings, which evidently cannot be completed within two or three years, the payment of any of the instalments has been postponed until the entire completion of the work, and then the whole payment has been spread over the years remaining out of the 20; that is within the discretionary power of the Board.

1224. In equal sums?—In equal sums as to principal; and I would submit, whether it might not be desirable to postpone all the payments of principal, and keep up the interest till the public work is completed to a sufficient extent to produce an income.

1225. What have been the nature of loans to individuals for the improvement of their estates?—In the early part of the Exchequer Loan Commission, power was given to advance loans for the support of collieries and mines, and that power was exerted in a few cases, carefully abstaining from lending money to extend works of that kind, and advancing the loans solely for the support of them, to prevent the labourers being thrown out of employment.

1226. Of the 200,000*l.* applied to Ireland, how much has been distributed, and how much remains at your disposal?—One hundred and ninety-three thousand and fifty pounds has been granted, which leaves a balance undisposed of, of 6,950*l.*, for which there is an application from one individual, Mr. Crommelin, to improve the harbour at Port Crommelin.

1227. Will you state to whom advances have been made, and the amount advanced?—This document contains the particulars.

[*The following Document was handed in*:]

TO WHOM GRANTED.	Amount of Loan agreed to be advanced.	Amount advanced.	Date of Advance.	Principal repaid.	Interest paid.	——
	£.	£.		£. s. d.	£. s. d.	Interest paid to—
Lord Bishop of Down and Connor -	10,000	10,000	15 June 1826	1,298 15 –	3,767 10 –	15 June - 1834
Trustees of Cork and Ballyhooly Roads	12,000	12,000	20 Dec. 1827	600 – –	480 – –	– Dec. - 1828
Commissioners of Courtown Harbour	6,000	6,000	13 Mar. 1828	nil - -	nil.	—
Ditto - - - - - -	8,500	8,500	24 Apr. 1834			
Trustees of Cork Markets - -	10,000	10,000	22 May 1828	1,000 – –	975 – –	8 May - 1830
General Overseers for building Court House at Tralee - - - -	9,350	9,350	16 Sept. 1830	8,107 4 10	1,028 10 2	1 May - 1835
Ditto - - Sessions House at Killarney	1,400	1,400	- - -	1,218 7 2	153 12 7	ditto.
Ditto - - Court House at Tullamore	9,800	9,800	19 Sept. 1833	669 11 –	311 9 –	1 Aug. - 1834
Commissioners of Tralee Harbour -	6,000	6,000	26 July 1832	600 – –	585 – –	4 Aug. - 1834
Ulster Canal Company - - -	120,000	20,000	29 Aug. 1833	—	—	—
		20,000	– Apr. 1835	—	—	—
	193,050	113,050		13,493 18 –	7,301 1 9	
Allotted by Parliament, 6 Geo. IV. c. 35, and 7 & 8 Geo. IV. c. 47. -	200,000	86,950				
Undisposed of - - - £.	6,950					

Application from N. de la C. Crommelin under consideration.

1228. What

1228. What interest did the Ulster Canal pay?—Three-and-a-quarter per cent. is charged. The money for the Ulster Canal was issued under an express Act of Parliament, leaving the Exchequer Loan Commissioners no discretionary power. There is to be no repayment till it be completed, and it is only from the prospective income of the undertaking that the interest and principal are to be paid.

J. S. Brickwood, Esq.

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1229. When you mentioned that you were at times with a very small fund, did the delay in providing others arise from your having no demand upon the Commissioners for loans, or a difficulty in procuring the sanction of Government?—I do not recollect the cause of not receiving further allotments of the fund for distribution. I know applications continued to go on, but I do not recollect the circumstance that delayed the allotment of the money.

1230. The delay was not at any time very great?—No.

Mercurii, 20° die Maii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *Conolly*, a Member of the Committee; Examined.

1231. YOU are, I believe, a large landed proprietor in Ireland?—I am a large landed proprietor in the county of Donegal, the largest I believe; and there is not one-third of my estate cultivated yet.

Colonel *Conolly*, M. P.

20 May 1835.

1232. Have you served frequently on Grand Juries?—Since the year 1808, without any interruption, but that occasioned by my Parliamentary duties. The county has been almost entirely opened by mail-coach roads, through the Grand Jury system, without borrowing one shilling.

1233. In your opinion, might not many more roads be made with great benefit to that county?—Many more are now in progress, and many more might be made, and are urgently called for.

1234. Does the Grand Jury possess the means of making those roads without the assistance of Government?—The Grand Jury have worked their funds with economy, and have been so careful of all their resources, that in the course of time they would be able to accomplish it; but certainly, advances from Government would quicken the operation, and improve the execution of the work.

1235. Would those advances be made without the least risk to Government?—Certainly, and with great advantage to the public, if the interest were only 3 per cent., because the profit arising out of the roads would be greater than the interest of the money. I consider that the value of all lands that have not been previously accessible, was doubled by the introduction of roads; there is a great road running across the county, which is nearly finished, where that effect has been produced, though the road is not quite completed. In a mountain town-land of my own, through which there is a road made, we found it difficult to let it for 21 years at 5*l.*; the road has been since made, at my expense, at 3*s.* a perch, and the half of the town-land has been charged with the whole of the rent by my tenant; a piece has been let off to another man, and 40*l.* has been given for the purchase of term; two good houses have been built by the new incomer; and at the end of the 21 years nearly the half of the town-land will be in arable.

1236. Does any part of your property border on the sea-shore?—Almost all.

1237. Would it not be very serviceable if small piers and quays were made at different places on the sea-shore?—There are three reasonably good harbours within ten miles of each other. We do not want small quays so much as we want a great harbour. I have within these two years expended nearly 3,000*l.* on one of the harbours myself. The quantity of sea-manure drawn up is enormously great, and it constitutes more than one-half of the value of the land.

1238. From this harbour you mention, are the means of communication sufficient at present?—We hope to have a railway of three miles to connect Lough Erne with the sea; for ordinary communication the roads are of good quality, and are reduced to the mail-coach level; the mail-coach travelling six Irish miles an hour.

Colonel *Conolly*, M. P.

20 May 1835.

1239. Would it not be serviceable if power was given to Grand Juries to raise money for the purpose of building small harbours and quays along the shore?—Throughout the various parts of the county of Donegal it would be highly serviceable; upon the particular part of my coast I do not think it is called for, but on the lower estate, below Killybegs, it would be highly useful, the fishery there being of incalculable value. Some piers have been built upon Lord Conyngham's estate, and have been very useful. There have been no very great sea fisheries till 1830 for about 30 years; at that time they were obliged to spread the herrings on the land for manure, from the inability to convey them up the country. In 1833 they always got from 5*s.* to 7*s.* 6*d.* a thousand, an ample remunerative price to the seaman; and, generally speaking, the herrings were sold at double the cost paid for them from the shore, so that there was a double profit, and they were run 40 miles into the country, and sold fit for use or salting.

1240. Is that by means of roads?—By the improvement of roads and carts. I estimate the value of the last fishery at 50,000*l.*, and I found my estimate on the monies paid to the different agents through the country, which I am satisfied could not otherwise have been discharged.

1241. You have already alluded to the great benefit arising from roads; has it not also occurred to you in your experience, that a great benefit might also be derived from the lowering of rivers and the improving of the inland navigation of the country?—Yes, I have already stated, that in levelling the roads it is mainly by lowering the rivers; and I will now show the Committee (pointing to a map) a mail-coach road, where the mail-coach road runs in the middle of a lough or lake, and where there were seven or eight steep hills, we have a road reduced to a water level, and the drainage of the lough cost but 27*l.*; the road is straighter, and is really very superior to the old one, which went over the mountain rocks; the climate has been much improved, and a great quantity of land has been brought into cultivation by deepening, straightening and discharging the small lakes and rivers.

1242. Have those rivers been made navigable?—The rivers I speak of are of no great magnitude in the summer months, but by obstructions cover a great quantity of ground in winter.

1243. That ground is now saved?—It is saved, and is now of the most productive kind.

1244. Does the whole of the river run through your estate?—It does, from the source to the sea.

1245. If that were not the case, would you have been able to carry the improvements into effect?—I am sure I should have met with considerable difficulty.

1246. Would it not therefore, in your opinion, be beneficial to the country, that power should be given to the Board of Public Works, in such cases, to pass through all lands for the purpose of effecting such improvements?—I am satisfied it would be highly useful; there are many of the middling and larger rivers in Ireland, I would instance particularly the Boyne and the Suck. By the opening of our ports and the improvement of the roads, merchants are brought from Derry to attend our butter market at a very trifling expense, and the price of the produce of the soil has certainly been increased from 10 to 20 per cent., with a prospect of a further increase as facilities are afforded.

1247. After the roads were made and these improvements took place, was it not your next care to divide and subdivide the land?—It became absolutely necessary for the peace of the country, as well as for the improvement of the soil, to break up the little villages, and to disperse the population more equally over the surface; the perpetual disputes, the frequent assaults and the unceasing contentions that too great contiguity necessarily occasioned, have almost all been terminated by the dispersion of the population, and the Magistrates at Petty Sessions have given the strongest evidence throughout the barony where it has taken place, of its advantages, in their diminished business; and other proprietors who were reluctant to enter into the expense at first, have been impelled to it by the acts of their own tenants, who have witnessed the beneficial results, and the peaceable consequences which have arisen from its adoption by me, and in most cases the occupant has had the quantity of land trebled, it has been so judiciously applied.

1248. When they were in those villages, did they hold in joint tenantry?—In some instances they held in joint tenantry; that was one of the great evils; there is not a bad passion of the human breast that is not evoked by the system of joint tenantry.

1249. Was not this particular plan useful with respect to the rough lands?—I will

will only answer that the people who were most opposed to it are now most pleased with it, and I can state of my own observation, that where the tenants have had any assistance from their landlords, there has been an anxiety on their part, and they are improving their own condition and bringing into profit great districts of country. I would mention one instance; a person holding in perpetuity under me had a road run through his property by me; the lease to his tenants fell with the Duke of York's life, and there are tenants holding under him now 10 acres of mountain, paying 4*l.* 10*s.* per annum to him, who paid at the rate of 2*l.* an acre for some of the arable they held before; and since the Duke of York's death they have brought two-thirds of their new holdings into cultivation, and have paid the rent and built a house without any assistance, and are in a thriving state.

1250. In making the roads to which you have already alluded, was there any contract between you and your tenants as to the amount contributed by you and the amount contributed by them?—In almost every case the roads have been made at the particular desire of the tenants, for the conveyance of sea manure, turf, lime-quarries or mills; the roads were in many instances made by the people receiving the payment in three years; that is to say, at 3*s.* a perch, receiving 1*s.* a perch every Spring; and they were so anxious to have the roads, that in some instances they were made without the bargain; and as I could not afford to pay them all at once, they were very well satisfied with that arrangement, and gave up the roads in good repair at the end of three years; since which, when these roads call for repair, it is the custom of the inhabitants of the town-lands to come to me and complain of their defective state, and I always pay them as much more as they bring me in cash levied amongst themselves, to be expended in repairs.

1251. Are they private roads?—Many of them have been adopted and repaired by the county when they became useful.

1252. Is there not at present a large distillery in the town of Ballyshannon?—There is one that has paid upwards of 15,000*l.* duty, and has the last year increased its scale of action one-third.

1253. What markets does that distillery supply?—It finds some difficulty in supplying the internal demand alone.

1254. For whiskey?—Yes.

1255. Has that demand been increased since the making of the roads?—Yes; had the roads not been made, a puncheon of whiskey could not have been drawn, nor could the barley or fuel have been brought to the distillery.

1256. Has it supplied the place of illicit distillation?—It has to a great degree supplied its place, and by the last reduction of duty nearly meets it in the market.

1257. By the making of the road, has not the revenue been considerably increased?—It has; the mountain fastnesses have been made accessible to the revenue officers, and I hope the illicit trade is rapidly in the process of extinction; if we succeed in opening our harbours, it is impossible to say to what extent the export of spirits may stimulate and improve the agriculture of the country.

1258. Do they export much flour from Ballyshannon?—Till we were enabled by the subdivision of the country to secure the fences, it was not possible to grow any wheat. The improvement of the fences, and the giving each individual a secure and separate interest to himself has annihilated the pernicious practice of persons keeping sheep and young cattle on unenclosed districts that had no land of their own; it has raised the public voice against that predatory system in which every body before used to participate; and we are now enabled to grow as good wheat as any in the empire (for which the sea-weed is an admirable preparative) on our stiff lands. We ascertained that there was 10,000*l.* a year paid in the town of Ballyshannon to other countries for flour introduced and drawn in no less than 20 miles; in some instances 50; and we hope, by the erection of a flour mill, to supply our own market, and ultimately to export very largely the grain of our own growing. We have imported tons of wheat-seed from Limerick, and from different markets where we thought we could get it best suited to our soil and circumstances. The advantage is very great for varying the agricultural crop, and in the proportion of 25 per cent. of increased return.

1259. Within how many years have these improvements which you have mentioned taken place?—My attention was first drawn to this thing in a year of great distress, in 1817, and we have gone on gradually as our income admitted; and as the profits were more and more apparent, we have gone on gradually extending them; and since 1817, 1,000*l.* a year has been steadily applied by our agent, which has been applied in this way: for carts, 100*l.*; flax-seed, 100*l.*; dispensaries, 100*l.*;

Colonel *Conolly*, M. P.

20 May 1835.

100 *l.*; schoolmasters, 100 *l.*, with the requisites and premiums; houses, 100 *l.*; roads, 200 *l.*; sick poor, 100 *l.*; and pensions, 100 *l.*; and extras, 100 *l.*; but in the last year of 1833, and in the year 1834, I have expended 7,000 *l.*, including the building of my house, which has much benefited the country.

1260. I see among the different items 100 *l.* for flax-seed?—Yes, that has always been allowed.

1261. Do you find the growth of flax-seed tries the land in that part of the country?—It is exceedingly advantageous in varying the agricultural crop; it is a green crop, and it is the best preparation for laying down land that agriculture has ever been acquainted with.

1262. Is it not destructive to some lands?—It is an exhausting crop, but it is the best mode of laying down various soils.

1263. Is that so with respect to those lands that have been improved by lowering and confining the beds of the rivers?—When I first went into the county of Donegal, the persuasion there was that no mountain land would grow flax; and it is now the conviction of every body that no land produces flax so well as newly wrought land.

1264. Have you found benefits result from advancing the amount of the presentments after they have been sanctioned by the magistrates at road sessions?—I have tried it and found it answer so much in advancing the money in distressed years, that it, has been repeated whenever the circumstances of the country called for it.

1265. And have you found the amount which you so advanced in fact returned in the payment of the county cess, so that the road has been obtained by the tenantry without the charge being felt by the tenantry, the only expense being six weeks' discount on the amount advanced?—Yes.

1266. As to the increase of imports arising from the extension of exports, what has been the case?—In building a large house, I have found all the grates, ironmongery, plumbers' work, water-closets, force-pumps and pipes at Ballyshannon, at the Liverpool prices; and every article of consumption called for by a gentleman can be found there on the best terms, being imported in the vessels coming for agricultural produce, instead of being drawn by land carriage from Dublin.

Veneris, 22° die Maii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *John Fox Burgoyne* handed in the following Returns:—

Col. *J. B. Furgenyo.*

22 May 1835.

1. RETURN of all Payments which have been made to the Solicitor of the Board of Works for Loans from the Board, as required by order of Select Committee respecting Public Works in Ireland.

2. Description of the Parties to whom the Loans and Grants have been made.

[*See the annexed Documents.*]

1.—RETURN

1.—RETURN of all PAYMENTS which have been made to the SOLICITOR of the BOARD of WORKS for LOANS from the BOARD, as required by Order of Select Committee respecting Public Works in *Ireland*, dated 8th April 1835.

Col. *J. F. Burgoyne.*

22 May 1835.

YEARS.	NAMES of BORROWERS.	AMOUNT borrowed. £. s. d.	NATURE of SECURITY.	COSTS of LOAN. £. s. d.
1832:				
August 3	Richard Johnston	1,000 – –	Mortgage and Bond Collateral	27 – –
„ 13	Ardglass Harbour Commissioners	6,650 – –	Mortgage of the Tolls, &c.	70 – –
	James O'Gorman	200 – –	Mortgage and Bond	14 10 –
„ 17	The Limerick Navigation Company	8,910 – –	Mortgages of Tolls and other Property	56 – 10
Sept. 22	The Ballymurtagh Mine Company	1,000 – –	Mortgage and Bond	58 18 –
Dec. 7	John Salmon	500 – –	Mortgage and Bond	27 – –
1833:				
Jan. 14	The Athlunkard Bridge Commissioners	9,889 19 2	Mortgage of Tolls, &c.	72 13 10½
Feb. 2	The Limerick Bridge Commissioners	25,000 – –	Mortgage of Tolls, &c.	136 17 4
Mar. 23	The Knight of Kerry	7,000 – –	Mortgage under a Power given by a Marriage Settlement	166 12 –
June 13	Galway Harbour Commissioners	17,000 – –	Mortgage of Tolls, Ground, &c.	84 7 –
„ 20	The Blessington Turnpike Trustees	3,500 – –	Mortgage of Tolls, &c.	67 6 2
July 18	Dublin and Kingstown Railway Company	50,000 – –	Mortgage of Profits, Ground, &c.	105 2 8
August 1	The Drogheda Harbour Commissioners	10,000 – –	Mortgage of Tolls, &c.	51 2 8
Sept. 10	Newry Navigation Company	12,000 – –	- ditto	62 3 11
1834:				
Jan. 23	The Trustees of Lords Besborough and Duncannon	2,000 – –	Mortgage and Bond	123 12 11
„ 31	Bruree Chapel	150 – –	Bond	4 – –
June 2	Second Loan to Dublin and Kingstown Railway Company	25,000 – –	Mortgage of the Tolls of the Undertaking, security for payment of calls towards liquidation of Loan	88 16 8
1835:	The Mullingar Turnpike Trustees	3,000 – –	Mortgage	26 18 4
April 9	The Commissioners of Wide Streets	20,000 – –	Mortgage of the Rates, &c.	35 1 1
	Boyne Navigation	1,700 – –	Mortgage of Rates, &c.	13 11 –
		£.		1,291 14 5½

21 May 1835.

Alex. Stewart.

2.—STATEMENT of LOANS and GRANTS recommended and sanctioned, classed under the different Descriptions of Parties to whom made.

	£. s. d.
LOANS:	
To Grand Juries	84,420 18 10
To Turnpike Trusts	8,100 – –
To local Improvements under Act of Parliament and otherwise, not contemplating Profits	103,449 19 2
To Companies by Act of Parliament, looking to profits from Tolls	112,000 – –
To Individuals for Mines, Quarries, Drainage of Lands, &c.	14,200 – –
To Ecclesiastical Commissioners, under 4 & 5 Wm. IV. c. 90.	100,000 – –
£.	422,170 18 –
GRANTS:	
To Grand Juries	31,954 10 10
To Individuals for local improvements	918 18 –
To a Company for - - ditto	635 15 4
£.	33,509 4 2

Office of Public Works, Dublin, 19 May 1835.

(signed) *Henry R. Paine*, Sec.

Dixon Holmes, Esquire, called in; and Examined.

Dixon Holmes, Esq
22 May 1835.

1267. HAVE you directed your attention to the capabilities and improvements that might be made in Ireland, and the utility of public works there?—I have for the last ten years.

1268. Have you been to Ireland with that view?—Yes, a great many times.

1269. What parts of Ireland have you principally visited?—Principally the south and south-west: principally the county of Tipperary, and a good deal in the western extremity of the county of Cork.

1270. Did you discover any want of roads, and communication from one part of the country to the other?—Very great, and I was astonished to find from Rosscarberry down to the sea, a distance of about 30 miles, that there were no cross-roads for the occupation of the land.

1271. Were there lines of communication, though not cross-roads?—There is a very fine road that goes from Cork to Bantry Bay; there are no cross-roads; and there is a square of 30 miles, I might say, without any cross-roads, and I saw the farmers carrying their manure on to the land either on the backs of horses or on their own backs, and bringing the produce off in the same way.

1272. Then are you not of opinion that it is absolutely necessary that roads should be made in that country?—Yes; I am of opinion that agriculture cannot be flourishing without the means of getting to the land in a better way than now.

1273. How do you propose that the roads should be made?—I submitted to the gentlemen of that district at the time to place every acre of land within one mile of good passable road; there should be a landlord's tax of 6*d.* per acre, which would make all the necessary roads, and pay the debt and interest in ten years.

1274. Did you contemplate any assistance from Government for that purpose?—I did not for this measure; I think if they would submit to a tax of 6*d.* per acre upon the land, and paying the contractors by transferable road bonds, bearing interest at 4 per cent. in ten years, they would discharge the whole tax. If you divide the counties into sections, four miles by two, there would be 5,120 acres of land within the area of each section, and one side and one end of each section would place the 5,120 acres within a mile of road; that is, 853 acres of land to every mile of road forward; therefore a tax of 6*d.* per acre would be 21*l.* 6*s.* 6*d.* per year.

1275. In that part of the country you said that broad lines of communication were sufficient?—They are sufficient, and in a very high condition.

1276. Did you find in any other parts of the country there was a deficiency of these broad lines of communication?—Not from my own knowledge, but I understood that there was a great deficiency in the county of Galway. In these parts the broad lines of communication were sufficient, but the cross-roads for the occupation of the soil was not, and consequently they did not use cars.

1277. What is the nature of the soil in those parts of the country?—It is rather various; there is a great deal of rock, but the land between the rock is very fine.

1278. Have you at all visited any of the bogs or waste lands of Ireland?—I have, several of them.

1279. Do you agree in opinion with the Commissioners' Report, that they are capable of improvement?—No doubt of it.

1280. Have you any plan to state to the Committee for the improvement of the bogs and the waste lands in Ireland?—I think that it ought to be done on a large scale or not at all, and I am afraid that such a measure as that cannot be effected without the assistance of Government. According to the Third Report of the Committee on Emigration, who made their Report in 1827, there were 4,900,000 acres uncultivated declared to be capable of improvement in the various counties, and they gave in their Report the amount of the different quantities of land in each county, which is as follows:—

SUMMARY of the WASTE LANDS of IRELAND.

COUNTIES.	Cultivated.	Uncultivated, capable of Improvement.	Unprofitable.	TOTAL.
	Acres.	*Acres.*	*Acres.*	*Acres.*
Antrim	336,400	218,870	119,136	674,406
Armagh	166,000	92,430	51,233	309,663
Carlow	173,000	34,000	15,021	222,021
Cavan	265,400	160,500	61,720	487,620
Clare	579,000	104,400	88,044	771,444
Cork	1,118,000	361,000	150,056	1,699,056
Donegal	507,000	417,920	175,951	1,100,871
Down	349,000	126,170	89,481	564,651
Dublin	159,130	49,920	21,071	230,121
E. Meath	465,000	40,120	26,078	531,198
Fermanagh	254,000	120,500	84,689	459,189
Galway	829,200	532,040	242,479	1,603,719
Kerry	556,300	348,410	144,483	1,049,193
Kildare	259,990	87,670	35,875	383,535
Kilkenny	403,100	58,110	25,367	486,567
King's County	341,310	80,900	34,954	457,164
Leitrim	222,250	128,200	64,189	414,639
Limerick	460,000	114,110	52,425	626,535
Londonderry	279,400	172,070	80,214	531,684
Longford	121,900	41,460	53,963	217,323
Louth	157,000	12,000	10,415	179,415
Mayo	502,900	565,570	212,302	1,280,772
Monaghan	257,000	12,000	21,952	290,952
Queen's County	311,100	47,120	22,966	381,186
Roscommon	348,100	122,460	91,113	561,573
Sligo	143,500	189,930	66,953	400,383
Tipperary	693,200	112,490	92,329	899,019
Tyrone	539,900	135,020	91,988	766,908
Waterford	348,500	44,220	33,016	425,736
West Meath	287,330	51,200	36,581	375,111
Wexford	340,470	156,200	58,828	565,498
Wicklow	281,000	162,000	61,792	504,792
	12,125,280	4,900,000	2,416,664	19,441,944

This, which is described as unprofitable, includes the ground on which all the towns stand, the rivers and lakes, and so on, that is included in the number of acres of unprofitable land.

1281. What is your plan for the improvement of these lands upon the broad scale you alluded to?—It is a proposal to raise a loan for colonizing and cultivating the waste lands of Ireland.

According to the Report of the Emigration Committee in 1827, there are 4,900,000 statute acres of waste land capable of improvement.

The quantity of land in cultivation is 12,000,000 of acres.

The population is 8,000,000, that is one and a half acre to each person.

The export of agricultural produce from Ireland exceeds 8,000,000 *l.* Sterling per annum; this must limit the amount of produce for home consumption below what is necessary for the fair subsistence of the population.

By an Act of Parliament of the 49th Geo. III. c. 102, Commissioners were appointed to inquire into and examine the nature and extent of the several bogs in Ireland, and the practicability of draining and cultivating them.

By four separate Reports of the Commissioners so appointed, it appears that there are 1,576,000 acres of flat bogs, and 1,254,000 acres of bogs that form the covering of mountains, being a total of 2,830,000 acres of bogs capable of improvement; and according to the quantity of waste stated by the Emigration Committee, there are 2,070,000 acres of mountain, &c.

The population of Ireland has increased since the Bog Commission was appointed in 1809 at least 33 per cent.

And no efforts have been made either by Government or the proprietors to derive any advantage from the possession of such immense tracts of rich but uncultivated soil.

England now pays to Holland, Belgium and Holstein 700,000 *l.* per annum for the single article of butter, the whole of which might and ought to be produced in Ireland.

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The middling and even small farmers in Ireland have a great deal of ready money, which they hoard up for the want of the means of employing it. In proof of this the increase of deposits in the Savings Bank in Ireland since 1831 has exceeded 25 per cent., while in England and Wales it is not more than eight per cent.

Those persons would take more land, if they could obtain it, on which to employ their capital.

Ireland is in a singular situation; her nobility and gentry have no ready money to aid in the colonization of the unreclaimed lands, and which are fettered by entails and settlements.

The farmers who have money cannot employ it, because the landlords cannot give them a sufficient interest in the soil, and consequently the mere labourer finds no employment; hence the extensive misery which pervades that country.

The principal cause of all the disturbances in Ireland is the difficulty of obtaining land whereon to employ their energies and support their families.

Thus here is rich land without occupation, a large diffused capital without employment, and a starving population in misery for want of combining the best elements of a nation's wealth and prosperity by productive labour.

It would promote the public tranquillity by a profitable employment of the population, and thereby securing the comforts of the labourers, and increasing consumption in the same ratio as it increases its production.

It would increase the demand for manufactures in proportion to the enlarged comforts of the people.

Though there is, as before stated, a great deal of ready money in Ireland amongst the occupiers of land, it is in small sums, and cannot be used in large operations.

It is therefore proposed to obtain a loan of 5,000,000 on the Government giving security for 2 per cent. interest.

To be vested in six Commissioners, who shall be authorized to take leases for 99 years, of such proprietors of waste lands as may be willing to let the same at a fixed rent.

Tenants for life to be authorized to grant such leases on the rents being secured to the purposes of their several trusts.

The Commissioners to expend a certain sum per acre in making roads and drains, and erecting the necessary buildings, and dividing the lands into farms of various quantities, according to the wants and means of the persons requiring occupation of the same.

The Government to be exonerated when the land pays 2 per cent.

After paying the expenses of management, all profits to be for the benefit of the Loan Contractors.

Two Commissioners to be appointed by Government.

Two by the Loan Contractors, and

Two by the landowners letting their lands to the Commissioners.

In a country situated like Ireland, it appears to be impossible to effect any great measure but under the immediate protection of the Government.

Even if the Government had the whole interest to pay, (which is impossible) it would only be 100,000*l.* per annum, and which would introduce into that country an additional floating capital of 5,000,000*l* sterling, and probably bring into activity another 1,000,000*l.*, now hoarded and useless for want of the means of employing it.

The probable increase of revenue would not be less than 500,000*l.* per annum, by the duties on all consumable articles.

By the increased demand for labour and the increased floating capital introduced, it would increase wages to a rate more equal with England, and therefore prevent the periodical inundation of the Irish peasantry to this country, to the great injury of the British labourer, and the increase of the poor rates.

Presuming an expenditure of 5*l.* an acre, the proposed loan would bring 1,000,000 of acres into cultivation, which would give a produce of 4*l.* an acre; that is, an increase of the national wealth of 4,000,000*l.* per annum.

The owners of the land to be allowed to redeem their leases at 16 years' purchase on the profit rents; and on paying half the purchase money, the Commissioners to be authorized to take mortgages for the remainder.

The Commissioners to be authorized to take more land with the proceeds of the sales till all Ireland was brought into complete cultivation.

1282. You say that the middling and even the small farmers in Ireland have a great deal of ready money, which they hoard up for want of the means of employing it,

it; what is your authority for that statement?—It is rather in the county of Tipperary, and part of the county of Cork; in talking with the great millers there, several of them stated to me that they were in possession of many thousands of pounds in sums of from 20 *l.* to 300 *l.* or 400 *l.*, which they were obliged to lock up, because the persons did not lend it to them, but only brought it to them for safe custody; and one miller said to me, "I have 5,000 *l.* locked up, and I dare not use a shilling, because I must give it back precisely in the form I received it." And as another proof, I would mention, about five years ago, I did propose to a large proprietor in the county of Tipperary to take of him a large quantity of waste land, if he could give me a sufficient lease, believing that I could find in London some capitalist who would join me in the undertaking. He stated the terms, which were extremely liberal, on which he would do it. I immediately went to the parish priest, and told him the object I had in view, and asked him his opinion of it. He said, "You are a Protestant;" but I told him "I have nothing to do with religion; I am only talking of the plough, and if you will produce me responsible tenants, I have no other question to ask, and we will divide the land; we propose to spend a sum of money on it in erecting buildings and making roads, and receiving a fair compensation for the use of the money." I left in two days, and gave him my address, and in six weeks he sent me over a list of names of persons that were willing to take the land, and who had so much money; but they proposed to put the money into the hands of the provincial bank at Clonmel, in their own name and mine; and the money to be drawn out for the purpose of being employed on the land as it was wanted, and that sum amounted to 9,700 *l.*, in sums as low as 20 *l.*, and some as high as 500 *l.* or 600 *l.*

1283. Have you any reason to suppose that is the case in other parts of Ireland?—I am sure of it, for there were people who came 60 miles to make their offers for the land in question. I soon found a gentleman in the city of London to furnish all the money necessary; but when we went to the proprietor, he could not give us a lease for longer than 31 years, and three lives concurrent; and that first induced me to think of a measure to get Parliamentary aid, and to throw the lands open.

1284. What lease did he require?—He would not take less than 60 years, although 31 years and three lives is very little different. It is not an English custom; and English people will say, "Let me know what I am to have."

1285. What rent were you to pay to the proprietor?—He proposed to give it me the first seven years rent-free, and afterwards five shillings per Irish acre during the remainder of the continuance of the lease.

1286. Is that land unprofitable to this moment?—Yes, to this hour.

1287. Had the person, who was to make the lease, a power under a will or a marriage settlement?—The estate was in settlement, and he was bound not to grant a lease for more than 31 years or three lives.

1288. Are you aware in many parts of England, particularly in Lancashire, that they are as conversant with leases for three lives as they are in Ireland?—I know they are in Lancashire; but I know that nobody here will take a building lease on six lives, but they take it on 99 years.

1289. What was the arrangement made by those persons who reclaimed Chat-moss in Lancashire?—I do not know.

1290. Do you know of large quantities of bog being profitably reclaimed by persons of skill and capital in Ireland?—I do not.

1291. Can you suppose that people without skill and capital can profitably reclaim bog, when men with skill and capital have not found it their interest to do so?—That is the very reason why I propose it to be done on a large scale, not leaving it to little contractors to do it.

1292. Do you know any experiment on a moderately large scale of the application of skill and capital which completely failed?—I do not; I know of several small concerns that have succeeded in an eminent degree.

1293. What do you call small?—Five hundred or 600 acres.

1294. Have you known 500 or 600 acres profitably reclaimed?—I have.

1295. Have you ever been in Kerry?—I have not.

1296. Your observations you confine to Tipperary and Cork?—Yes.

1297. Is the district you applied yourself to mere bog or mountains?—Both; there is a great deal of mountain in Tipperary; there are the Tipperary mountains that go from Cahir to Tipperary, a distance of about 12 English miles; there is the

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glen of Aharlow, the property of Mr. Dawson, in cultivation, and it is evident that all the other glens might be so cultivated.

1298. Did you ever see the line of cultivation of the Galties from Cahir to Mitchelstown?—I have.

1299. Do you approve of the mode in which it is done?—There is a great deal of good done there.

1300. Had you seen it before?—I had not seen it; it is near this road. I made a proposal to take 5,000 acres.

1301. To whom did you make the proposal?—To the proprietor.

1302. You say, to your knowledge, that several tracts of land to the extent of 500 or 600 acres have been reclaimed with beneficial results?—Yes.

1303. And profitable results?—Yes.

1304. Have you had occasion to observe the great improvement upon the mountains towards Mitchelstown?—I have.

1305. Were they made by the tenant or by the landlord?—I rather think the tenant.

1306. Do you not know the Keeper mountains?—Yes, I do.

1307. Do you not think a great part of that is capable of cultivation?—I do; I think many mistakes have been made in cultivating bogs in draining it too much.

1308. Do you mean in under-draining it too much?—Yes, in sinking it too deep; I propose surface-draining; by merely ploughing ridge and furrow, you will get the land sufficiently drained for a good crop resting on water all the time, if there is a sufficient fall from the land to the main drains.

1309. Have you directed your attention to the making railways in Ireland?—Yes; that was the first business that took me to Ireland.

1310. Where did you propose to make a railway?—There was an Act of Parliament passed to make one from Waterford to Limerick.

1311. Has that been carried into effect?—It has not.

1312. Is it for want of means?—It is.

1313. In your opinion, would it be a beneficial undertaking?—I should think it would.

1314. How do you account for not carrying it into effect?—The want of confidence in the public to subscribe to the undertaking.

1315. What produces that want of confidence?—I cannot tell. I ought to state, particularly as the Chairman of the Board of Works is here, that it was not their fault it was not executed, because that Board, upon an investigation of all the circumstances, offered to lend 100,000*l.*, if there was a *bonâ fide* subscription for another 100,000*l.*

1316. What would have been the result of the railway if it had been carried into effect?—The railway for which the Act of Parliament was obtained was to go from Waterford to Limerick, but it was afterwards suggested, that if it went to the deep water below Carrick on Suir, it would be very sufficient; and it was also proposed, not merely to go to Limerick, but to go above the falls of the Shannon at Killaloe, which would open the course of the whole of the Upper Shannon from Lough Allen to Lough Derg, a distance of 147 miles.

1317. And thereby open the Shannon to the London market?—Yes, and open the Shannon to the London market by way of Bristol.

1318. How would this project of a railway to Killaloe operate upon the trade at Limerick?—I think the trade of the Upper Shannon does not go to Limerick, but goes down the Grand Canal to Dublin, because no person would export agricultural produce from Limerick when they can get it from Waterford; it is a distance of 300 miles longer voyage.

1319. Was the line ever surveyed to Killaloe?—No, it was surveyed to Limerick, and it would not be above 15 or 20 miles more to survey.

1320. Are there not some great and almost insurmountable natural obstacles?—No, if you keep to the south of the Keeper mountains, and go up the side of the Shannon, which will lengthen the railway a little, but not very materially.

1321. Do you know of your own knowledge that there is a sufficient level in that line?—I do; from the town of Tipperary to Limerick there is a fall of 267 feet, and the rise of the Shannon between Limerick and Killaloe is 97 feet; therefore it diminishes that fall, and you have at first to keep on higher ground to the amount of nearly 100 feet.

1322. Can you state what the estimated expense of the railway from Waterford to Limerick is?—I have the estimate made by Mr. Stephenson the engineer, who

went

went over the whole line with me; we then contemplated going no further with it than Tipperary, because the merchants of Limerick did not think it would be very useful to them, and there were 38 miles from Tipperary to Carrick, according to Mr. Stephenson's estimate, would cost 148,616*l.*; the distance from Tipperary to Limerick is, I believe, 22 miles, with a fall of 267 feet in it, according to Mr. Nimmo's survey.

1323. Is there any estimate of what the expense would be from Tipperary to Limerick?—No separate estimate; it is estimated in some of the papers; the whole estimate was 324,000*l.*; it is stated as a conjunctive estimate. It would cost 350,000*l.* to take it to Killaloe. I was going to observe, that I had a large meeting in the town of Tipperary of the pig-jobbers there, to inquire what they could afford to give me to carry their pigs from thence to Clonmel to the bacon yards; they offered 1½*d.* a mile for every pig, great and small. I told them, when they made that offer, that the largest pig that ever was fed in Ireland I would carry for 1*d.* a mile, and the small store pigs for ½*d.* They told me it cost them 2½*d.* for every fat pig, when they took into consideration the time they were on the journey, and the loss of flesh and the death of the animals by fatigue; and Mr. Murphy, a large bacon merchant at Clonmel told me, that when the pigs arrived at his yard he never would kill them till they had undergone eight days quarantine, to see whether inflammation was produced by their journey, "but if you will bring them by the railway I will kill them the next morning."

1324. Do you think that it would promote the reclaiming of waste lands, if proprietors, circumstanced as the gentleman with whom you were anxious to deal, were empowered to charge the inheritance with a certain portion of the expense incurred in the reclamation of those waste lands?—I should think there is no doubt it would, particularly if you allow the tenant who takes a long lease to charge a portion of his expenditure upon the freehold, which I believe in Scotland they do. It is very singular, that in the Bog Report they seem to have entirely overlooked, that the statute of 5 Geo. II., an Irish statute, has given power to drain bogs and waste lands, and apportion the expense on the respective proprietors, by a Commission issuing out of the Court of Chancery and a Jury to decide thereon, and with power also to settle the metes or boundaries of the bog of each proprietor, and where no ancient boundary can be ascertained, then to assign to each proprietor a quantity proportioned to his cultivated land; that is the Irish statute of the 5 Geo. II., and by 11 & 12 Geo. III. there is a power for the tenant for life to grant leases of bog or waste lands for 61 years.

1325. Did not the proprietor take advantage of that statute?—He did not know of that statute till three months ago, and he could not have let the quantity, because there is an absurd clause in that Act of Parliament, that he shall not grant more than 50 acres to any one tenant.

1326. Are you apprised that the first statute has been found impracticable, on account of the expense, it requiring the expense of an equity suit to carry it into effect?—It is a very common practice in this country under the Sewer Laws of Henry VIII.

1327. The Commissioners of Sewers here have a jurisdiction which is not the Chancery jurisdiction; I want to know whether you are apprised that that statute has been found unavailing, for this reason, that no improvement could be made under it without all the expense, in fact, of a Chancery decree?—I was not aware of that; I am glad I have mentioned it, because I have got that explanation.

1328. If you had five millions to lay out, do you think that the bogs and waste lands are those lands upon which that sum could be most profitably expended?—I do.

1329. Do you consider that the arable and pasture lands of Ireland are so maintained and improved, that a very considerable expenditure might not be profitably laid out upon them?—No doubt it might, but it is impossible to raise a large sum to be laid out in detail by the local tenantry, because you cannot lend the money to the different occupiers; and therefore, unless those to whom the money belongs have a control over the land for a given time, they will not advance the money.

1330. Supposing five millions, or any sum you please, what I wish to know is, whether that sum would not be made more productive of interest to the person, by laying it out upon lands already broken in, than by laying it out upon lands uncultivated?—I do not think it would.

1331. Do you know any district in Ireland in which even the best land in it is cultivated to that degree, that it is not capable of great improvement, and great advantage would be derived by laying out more capital upon it?—I am quite convinced

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vinced that that is the case, that more capital might be laid out both there and in England; and England wants capital laid out upon land to the full as much as Ireland, I believe.

1332. Do you mean to say there is the same room for the expenditure of capital upon English lands as they stand at present, as upon lands in Ireland?—I do.

1333. Do you know any farm of 20 acres in Ireland, cultivated to that degree that capital might not be very advantageously laid out?—I do not, nor do I know 20 acres in England that have not the same susceptibility.

1334. Can you expect that capitalists in London will lay out five millions in Ireland, if, as you now say, they can advantageously lay out five millions for the cultivation and improvement of land in England?—Yes, for the best reason in the world, that they cannot get land here; there you might give them 50,000 acres in one mass upon which to advance the money; here you would find the quantity of acres in the hands of a thousand persons.

1335. Have you been in Ireland since the Trappists have got a tract of land from Sir Richard Musgrave?—I have not since they completed their works, but the success of their undertaking on the barren mountains of the county of Waterford, completely illustrates my proposal for cultivating the wastes of Ireland.

1336. Are you acquainted with the sort of land called Bottoms, land on the borders of rivers and filled with springs?—Yes.

1337. Do you not consider capital laid out in draining those lands and getting the command of water that comes upon those lands, would be more beneficially laid out than in reclaiming bogs or mountains?—It is very likely; but in most of the mountains I have seen in Ireland there are reservoirs of water as high up as you would desire, and of consequence you might irrigate them to any extent.

James Pim, junior, Esquire, called in; and Examined.

James Pim, jun. Esq.

1338. DO you live in Dublin?—I do.

1339. What is your profession?—I am a stock-broker; I am also treasurer to the Dublin and Kingstown railway.

1340. As stock-broker, have you had an opportunity of seeing the manner in which the issue of Exchequer bills, under the Public Works Act in Ireland, has operated?—Yes.

1341. Has it operated beneficially to the community?—The issue of Exchequer bills that has lately taken place has been of great convenience to the monied interest.

1342. Was there any issue of Exchequer bills in Ireland before that?—None properly so called, but a good many years ago we had the Irish Treasury bills, which were very nearly of the same character.

1343. When did they cease to be issued?—Upwards of 20 years ago, I should think.

1344. Then, from that period to 1831 you had neither Treasury bills nor Exchequer bills in Ireland?—We had not.

1345. And was the want of such securities felt?—Yes.

1346. What is the peculiar advantage of laying out money in Exchequer bills?—It enables parties to deposit money for short periods at a low rate of interest, without being liable to the considerable fluctuation which sometimes takes place in Government securities; for instance, trustees and other persons have often large sums of money to pay for the purchase of an estate, and not knowing when the title-deeds will be quite completed, the money can be safely invested in Exchequer bills; they might incur considerable responsibility if they invested the money in Government securities.

1347. Could they not buy Exchequer bills in London?—Considerable difficulty would attend that; in the first place, the risk of transmission; in the second place, the interest upon those Exchequer bills is only payable at the Bank of England.

1348. Is the interest of the Exchequer bills issued in Ireland payable in Ireland?—Yes; payable at the Bank of Ireland.

1349. At what rate were the Exchequer bills issued under the Public Works Act?—The first issue was at $2\frac{1}{2}d.$ per day.

1350. What premium did those Exchequer bills bear?—The premium varied; the first issue sold at a low rate; we were not then used to them.

1351. Did the premium afterwards rise?—Yes; as the amount issued by the Board increased, the premium advanced.

1352. How do you account for that?—Unless there was a considerable amount of

of them in circulation, we should not have what is technically called "a market" for them; that is, a person wishing to invest money cannot find Exchequer bills to purchase, and, on the contrary, a person wishing to sell Exchequer bills cannot find persons to buy.

1353. The parties are not sure of always finding them?—No.

1354-5. Capital is not turned in that channel?—Precisely so; I can illustrate it by another instance; we have a considerable amount of floating debt of debentures of the Grand Canal Company, upwards of 700,000*l.*, and a small portion of that debt, about 17,000*l.*, bears interest at the rate of $3\frac{1}{3}$ per cent.; and those debentures always sell at a much less proportionate price than the great mass of the debt which bears interest at the rate of 4 per cent., from the difficulty of finding purchasers or sellers; in point of fact, from their so seldom coming into the market.

1356. You said the first issue of Exchequer bills was at $2\frac{1}{2}d.$ per day?—Yes.

1357. Are there not any of those bills at a lower rate?—Yes.

1358. At what rate?—Twopence, which is 3*l.* 0*s.* 10*d.* per cent.

1359. What is the premium now obtainable?—About 7*s.*

1360. How do you account for the premium being so much higher in London on Exchequer bills issued than it is in Ireland?—The London "Exchequer bill market," to use a technical phrase, is a very much better one than the Dublin, for they can at once invest almost any amount of money, however large, in Exchequer bills; and, on the other hand, you can easily convert a large sum of Exchequer bills into money.

1361. Would not the premium be raised in Ireland if the issue of Exchequer bills was greater?—I am satisfied, if the issue of Exchequer bills was gradually increased so as to meet the demand, that the premium on them would gradually rise; and I see no reason why Exchequer bills should not bear as high a price in Dublin as in London, when the 3 per cent. Consols and the other description of Government securities bear the same proportionate price.

1362. You mean if the market was properly supplied?—Yes, if it was fairly supplied.

1363. What was the premium obtainable when the interest was $2\frac{1}{2}d.$ a day upon Exchequer bills?—It varied from 12*s.* to 45*s.*

1364. Then the premium fell upon the lowering of the interest?—Certainly.

1365. Would you not expect the premium to rise, notwithstanding the lowering of the interest?—As I said before, I think if the amount of the issue of these securities were gradually increased, the premium would rise considerably beyond what it is at present.

1366. Is the interest of those Exchequer bills payable in London or Dublin?—The interest of the Exchequer bills issued by the Board of Works in Ireland is payable at the Bank of Ireland.

1367. The interest of Exchequer bills generally is payable at the Bank of England?—Yes.

1368. Would it not be a great convenience if they were payable both in Dublin and in London?—Certainly; the advantage would be, that we should have always a market in England to apply to, as we now have in other Government securities; for instance, if we get an order from the Court of Chancery or others to sell a large sum of stock which could not be effected in our market without reducing the price, we have the power of transferring that stock at once to London, and having it sold there; and *vice versâ*, if the interest on Exchequer bills were made mutually payable at the Banks of England and Ireland, the same result would obtain to a very considerable extent, the only difference I can see being the postage and risk of transmission.

1369. And you think the premium would be raised?—Yes; that would be an inevitable consequence.

1370. At present do the parties purchase Exchequer bills in Ireland and sell them in London at a higher premium?—No, they will not purchase in the London market our Exchequer bills at any price, if payable only at the Bank of Ireland.

1371. If this alteration was made, would there be any difficulty in reducing the interest to $1\frac{1}{2}d.$ a day?—No, I think not.

1372. How much per cent. is $1\frac{1}{2}d.$ a day?—£. 2. 5*s.* 7*d.*

1373. If you were compelled to negotiate Exchequer bills paying $1\frac{1}{2}d.$ a day at present, would they be at a discount in Ireland?—I am quite satisfied of it.

1374. And it would not be so if they were mutually payable at the Banks of

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England and Ireland?—No; I consider the premium in Ireland would nearly approximate to the premium here.

1375. Would not the advantage you first stated arising to Ireland from the opportunity of laying out money in Exchequer bills be sometimes taken away?—No, quite the reverse.

1376. Would not England purchase the bills in Ireland?—We should have the corresponding advantage of purchasing English Exchequer bills.

1377. At a high premium?—I consider the premium would be the same in both countries as nearly as possible.

1378. Do you not think money payable in London is more valuable in Dublin than money payable in Dublin is in London?—No; it has not been so for the last three months.

1379. Do you infer from that course of exchange that the amount of imports into Ireland are as great as the amount of exports from Ireland to this country, and that the payments are nearly equal on both sides?—That is not the deduction I should draw from it.

1380. In your opinion, independent of any benefit arising to Ireland by an additional sum of 500,000*l.* being laid out in public works, would not great benefit arise to the money market in Ireland from the issue of Exchequer bills?—We have not at present 500,000*l.*, or near it, in circulation.

1381. Supposing you had 500,000*l.* in addition to what you have at present?—I am satisfied from my experience of the money market at Dublin, that if they were issued judiciously and by degrees, in the course of twelve months 500,000*l.* additional of Exchequer bills would be taken into circulation with great advantage to the Irish capitalists.

1382. And at a premium?—Decidedly, supposing the present state of things to continue, and the present price of the funds; and if they were also made payable at the Bank of England they might be issued at a lower rate of interest than at present, and the premium would be higher than at present.

1383. Payable both in England and in Ireland?—Yes, reciprocally, at both.

1384. Would there be any risk of the English market absorbing the whole issue?—I think not; I can see no good reason to apprehend such a risk when the price of other Government securities is as high in Dublin as in London.

1385. Are the 3½ per Cents. about the same?—They are rather higher at present in Dublin.

1386. Do they not rather follow the English market, and the price is rather lower?—Inasmuch as the amount of the exports has considerably exceeded the amount of imports; the balance is then to be made up in a great degree by the importation of Government securities.

1387. Is not the price of Government securities rather more steady in Ireland, and less liable to fluctuation from day to day, from political events or rumours?—They are less liable to occasional fluctuation throughout the day; but on our Stock Exchange we are always influenced by the prices at the close of the day here.

1388. There is less daily gambling?—There is, in point of fact, no gambling on the Dublin Stock Exchange; we have no time bargains; all business transacted by us is *bonâ fide* and immediate.

1389. You stated that there was a constant flow of stock from England to Ireland for the purpose of making up in part the difference between the exports and imports?—That is the tendency.

1390. Generally, that is so?—There is a very considerable annual increase in the amount of Government stock transferable to the Bank of Ireland; the annual Parliamentary Returns show a considerable quantity is, upon the average, imported into Ireland yearly; some years, from particular causes, it has been rather the reverse.

1391. Are there not two drains upon Ireland; is not all the taxation of Ireland a drain, being remitted to England; and is there not another drain, absentee rents?—Yes.

1392. Do not those two drains, to a certain extent, absorb the value of our exports?—Yes.

1393. And therefore all the surplus that can come in the shape of Government stock is the surplus of exports over absentee rents and fiscal demands, and the imports?—Yes, in part; but we have also to pay for all our other imports.

1394. Do you not conceive that there is an influx of capital into Ireland, and that Ireland exports more than meets the imports, its drains and its fiscal charges;

do you consider that there is a considerable annual surplus after all that is supplied?—A very large one; it is the annual increase of capital to persons engaged in agriculture and trade.

1395. Do you conceive that the amount of the transfer of Government stock to Ireland remunerates Ireland for the excess of her exports over her imports?—I do not; I think it only does so partially.

1396. Have you any idea to what extent?—No.

1397. How do you suppose the difference between the amount of the exports and the imports is made up?—Principally by the importation of Government securities.

1398. You state that the exports are converted into money; how is that money applied?—In the payment of fiscal charges, the payment of rents to absentees, the payment to importers for goods; and I think the balance is in a great degree made up by importing either bullion or Government securities.

1399. At the end of each year the transactions on each side are closed?—Yes, to a very great degree; there are balances which may remain in the hands of bankers or agents.

1400. Upon that settlement the amount of the exports that go to countervail the Irish revenue payable in London and the Irish absentee rents, have no return to Ireland to the extent of the revenue payable by Ireland to England, and the absentee rents payable by Ireland to England; the exports of Ireland have no return to Ireland?—I think not.

1401. Suppose the exports of Ireland to be twenty millions, is not Ireland entitled to the credit of that twenty millions, in that view of it, as due to her by England?—I conceive so.

1402. Now, taking the surplus of the revenue of Ireland over the expenses of the establishment there to be four millions, that four millions does not come back to Ireland, but remains in England to be paid by the exports; is not that so?—I conceive so.

1403. Suppose the absentee rents to be six millions, payable in England, that six millions also remains in England, without giving back anything to Ireland, which are exports *pro tanto*; is not that your opinion?—Yes.

1404. That being upon that supposition 10 millions, the other 10 millions you will account for in general terms by the six millions imports from England to Ireland, for which Ireland gets value in imports?—Yes, imports of produce or merchandize.

1405. That is the actual value Ireland would get for her exports?—Entirely.

1406. Then what would remain is four millions more, and, according to your statement, Ireland gets value for that in bullion or Government securities?—Precisely.

1407. And the clear result of that would be, that on the 20 millions of Irish exports, Ireland gets back in equal value, in imports of one kind or other, 10 millions, and the other 10 millions would be expended in England altogether?—Yes, provided the arbitrary sums you have supposed are correct.

1408. Are you at all aware of the extent to which the revenue of Ireland surpasses the Irish establishment?—I am not aware of it.

1409. Did you not state just now that there was evidence of accumulation of capital in Ireland?—I did.

1410. How can you make that consistent with the answer which you have just now given to the question put to you?—I think it is perfectly consistent; for instance, the four millions which were supposed by the Honourable Member would form a gradually increasing fund; it would be four millions added to our former savings; we should have four millions next year, with the interest upon that four millions.

1411. Then, according to your view, 10 millions annually was lost to Ireland, in consequence of the transmission of revenue and absentee rents; therefore, instead of having an accumulation of four millions a year, you would have a deficiency of six millions?—I do not agree with you; in one case we might have an increase of 14 millions, and in the other we should have only four millions.

1412. Therefore, you say that Ireland loses the difference every year; she would otherwise gain it, if she was not in the position to England that she is as to absentee rents and taxes?—I do not conceive that I am enabled to give evidence upon an abstract question of political economy of this kind.

1413. Supposing for a series of years there was a balance against Ireland in this way,

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way, must it not inevitably lead to a bankruptcy?—No, because the balance has been in favour of Ireland, but a balance not so large as it might have been under other circumstances.

1414. Then the result of your evidence is, that there is not any loss or drain upon Ireland, but a less comparative gain?—Precisely so.

1415. Do you know any agricultural country in the world in which there are so many poor people belonging to it?—No.

1416. You have stated that Ireland does not lose by her intercourse with England, but she does not gain what she might gain; that is, her profit is not so great as it might otherwise be, if there was not the drain of absentee rents, and the taxes of Ireland, paid here beyond the expenses of her own establishment; I wish to ask you, do you think it possible that England and Ireland could, under any circumstances, carry on trade together, by which Ireland could gain the full amount of the sum which you now say she does not gain; is that possible?—I do not think it is possible.

1417. Then if it is not possible, it is not fair to say that she does not gain as much as she otherwise would do, if she does not gain the full benefit?—From the considerable amount of rent which has to be transmitted on account of absentees, and the large sum transmitted as surplus revenue, under these circumstances, I cannot conceive that our trade with England can be conducted otherwise than it is at present.

1418. You said you were the treasurer to the Dublin and Kingstown railway?—I am.

1419. Is that road now completed?—I do not consider it is quite completed.

1420. At present is it not so opened as to be useful to the public?—Yes, a very great convenience to the public.

1421. Have you carried on that road as yet any thing but passengers?—Yes, passengers and luggage.

1422. Is it your intention to carry other commodities on that road?—We obtained an Act of Parliament last Session for its extension to a wharf, now constructing within Kingstown Harbour, under the direction of the commissioners of that harbour.

1423. What was the amount of money expended by you in making the road?—Upwards of 200,000 *l.*

1424. Was not that expenditure of money most beneficial to the people in that part of the country?—Yes, a very large proportion was expended in weekly wages to labourers; no doubt it was extremely beneficial to afford employment to a great number of persons.

1425. Are you aware of the fact, that the Catholic clergy of that district have reported that the consumption of spirits diminished exceedingly while you were paying regular wages?—I was not aware of that gratifying fact.

1426. What has become of the people who were employed on that road at present?—I should suppose that a great number of them have returned to the country from whence they came.

1427. Have they taken with them capital, which they saved out of their wages while working on the road?—In many instances very considerable sums were saved by the parties who were employed; many have acknowledged to me that they have saved from 20 *l.* to 40 *l.*, and their general conduct, while the works were being constructed, was characterized with great industry and propriety, and I know that a very large proportion of them have returned home greatly improved as workmen, and in that point of view the result has been extremely beneficial.

1428. What number of passengers have you carried?—We opened on the 17th December, since which we have conveyed upwards of 350,000 passengers.

1429. At what rate?—The average price is about 7¼ *d.*

1430. Is that entirely a new communication, or to what extent is it new?—There was always a very considerable intercourse between Dublin and Kingstown carried on by cars; no doubt the railway has increased it very considerably.

1431. Can you tell the average length of time which the cars took in going, and the distance?—I should think the average length of time taken by the cars after they got in motion, was probably 45 or 50 minutes from Dublin to Kingstown.

1432 Are you not able to do it in 11 minutes?—Easily.

1433. Were there not two days on which there were more passengers than usual?—Yes; two days of the races at Kingstown; on one of those days we conveyed 8,900 persons, and on the other 9,700.

1434. Do

1434. Do you expect to keep up that number, or to increase it?—We fully expect the numbers will increase as the fine weather advances.

1435. Do you not anticipate an increase from the extension of the present line to the place of embarkation and disembarkation of passengers from and to England?—No doubt.

1436. Suppose this system of improvement was to be extended to other portions of Ireland, would there be a similar increase under the circumstances in which this improvement took place?—I am satisfied that if railways were judiciously laid out and constructed, they would be highly remunerative in Ireland, and they would in a great degree tend to create a traffic for themselves; I have no doubt upon that subject.

1437. Why has not the extension for which you obtained the Act of Parliament last year been carried into effect?—There was some difficulty raised by the Admiralty as to the manner we should cross the old harbour of Dunleary, and we are now negotiating with the Lords of the Admiralty upon that subject.

1438. With any probability of coming to a favourable conclusion?—I am greatly afraid their Lordships will require some terms from us which will prevent us from enjoying the benefit of the extension till public opinion calls for it.

1439. Are their Lordships aware of the injury which the public sustain in consequence; is it fairly put to them?—I scarcely think their Lordships are aware of what great advantage this extension would be to the public and the Post-office communication; I am inclined to think they attach much greater importance to the preservation of the old harbour than to these advantages.

1440. The advantage to the public and to the Post-office communication, if the line was adopted, would be very considerable, would it not?—Yes; at present we convey the mails, and we are obliged to send them in a small cart from the station at Dunleary to the jetty.

1441. Occasioning both delay, cost and risk?—Yes, there is some slight risk, but great inconvenience to the passengers.

1442. And a consumption of time unnecessarily?—Yes; I apprehend there is as much time consumed in conveying the mails the short distance from the Post-office to our station, and from our station to the jetty, as there is in conveying it the whole length of the railway.

1443. What are the objections of the Admiralty to your proceeding as the Act authorizes you to do?—The Act provided that we should only proceed as their Lordships should approve of; we acceded at once to that clause.

1444. What objections were raised?—That we encroached to a certain extent upon the old harbour of Dunleary, where there is a beach, which under certain circumstances they are of opinion might be useful.

1445. Is it a sandy beach?—It is not a sandy beach.

1446. Would it in your judgment be an advantage to the public to cross the old harbour of Dunleary in the way you propose?—It would.

1447. Why do you think it would be so useful?—It would afford great convenience as a wharf for the discharge of vessels.

1448. Have you any objection in going across that part to make an archway or two, so as to allow the boats any advantage they have at present?—I think there would be no objection to make an arch or two, sufficient to allow the boats to pass under.

1449. In your judgment, would you cut off any part of the harbour which is at present available to shipping of burthen?—I do not consider we should cut off any portion of the harbour ever likely to be available to shipping of burthen. I admit an extreme case might by possibility arise, of a vessel being driven in without anchor or cables, and she might take the ground more easily in the old harbour than any other situation.

1450. If a breakwater be formed at the mouth of the harbour, and with the state of the harbour itself, can you conceive a case, after that, in which it would possibly answer for a vessel to run for that strand?—I think it would be in the highest degree improbable; the advantage to the public bears no proportion at all to the immense cost it is proposed to subject us to.

1451. It might happen once in ten or twelve years?—I do not think it is likely to happen once in 100 years.

1452. Do you apprehend that the railway made in the way you propose would have the tendency to increase the swell in the harbour?—I think it would have such a tendency to a very small extent.

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1453. Is that one of the objections taken by their Lordships?—It is; but when the harbour is completed in the manner proposed, then such a result will be reduced so low as not to be of any really injurious effect.

1454. Your experience upon the railroad hitherto has had this disadvantage, first, that you have not been allowed to complete the Kingstown Harbour, and next, that in the winter season you have gone on as yet?—Yes.

1455. Now, in point of season alone, are you not aware you must naturally have a great increase of passengers to Kingstown in the summer season?—Undoubtedly.

1456. And, if you were allowed to complete the wharf, would it not lead to much greater accommodation to passengers, and greater facilities to them, with little additional expense in machinery and daily expenditure, if the railway was completed?—Unquestionably; and it would also have this advantage, of making the railway applicable to commercial purposes as well as to passengers; and I have no doubt whatever that the Liverpool and London steamers would find it to their advantage to discharge at Kingstown Harbour, rather than subject themselves to the delay and difficulties incidental to the River Liffey.

1457. You are aware that it is more necessary for steamers to keep themselves afloat than other vessels?—Yes; every vessel sustains a certain amount of injury upon taking the ground, and steamers, from their greater length, are much more liable to receive injury than other vessels are, the surface of the ground being generally uneven; and when we consider the vessel as the foundation on which machinery is erected, and that the value of that machinery depends on its accuracy, and that steamers are obliged to take the ground fully loaded, and sometimes partially loaded, and sometimes with only the weight of their engine and boilers, the consequences to the machinery are exceedingly injurious.

1458. Of course you are aware that no vessel can lie 24 hours in Dublin River without taking the strand?—It must take the ground twice.

1459. Have you found the present returns on the railway have been sufficient to afford a fair interest upon the capital?—The results have been highly satisfactory to the directors and the proprietors.

1460. What is the price of shares at present?—Eighty-two pounds per share; 60*l.* paid.

1461. You would not have been able to complete the work without a Government advance?—We should not have contemplated it without the prospect of receiving assistance from Government; we have received a loan of 74,000*l.* from the Board of Works.

1462. Have you found the terms upon which the loan is made as liberal as you could have expected?—No; I think it has been an error in the Public Works Act that a fixed and unvarying rate of interest applies to all loans except those to Grand Juries. I think it would have been judicious had Government or Parliament thought proper to encourage parties who come forward with a very large contribution of their own to co-operate with Government in promoting Public Works, that the rate of interest to them should have been much lower than to others who do not come forward with any such concurrent advance.

1463. Ought Government to charge more interest than they pay themselves?—Certainly not, in my opinion.

1464. Ought not Government to protect itself from any risk by charging a higher rate of interest?—Where parties contribute from their own resources one-half the cost of such a work, and where they must forfeit the entire of the advance before Government can lose one farthing, I conceive that the Government runs very little risk indeed; and taking into consideration the direct advantages which Government receives by putting such a quantity of money into circulation in the increased consumption of exciseable commodities, and in various other ways, they would be no losers, and that on the contrary they would be considerable gainers if they lent the money on much more favourable terms.

Lunæ, 25° die Maii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

James Pim, jun. Esquire, called in; and further Examined.

1465. SINCE you were here on Friday, have you received any answer from the Lords of the Admiralty to the Memorial presented on behalf of the Dublin and Kingstown Railway Company?—Yes.

1466. Is their answer favourable or not?—I am sorry to say that so far from affording increased facilities, increased difficulties are thrown in our way.

1467. What are the difficulties?—Our application was for liberty to postpone for a few years the construction of the proposed compensation harbour.

1468. What do you mean by compensation harbour?—Their Lordships have required that we should remove a portion of the pier of Kingstown Harbour, and add as much as would be cut off by the proposed extension of the railway from the old harbour of Dunleary.

1469. Are you willing to do that?—It would cost us a very large sum of money, without, as we conceive, any corresponding advantage to the public. We memorialized their Lordships for liberty to postpone the construction for a few years, offering to enter into any adequate security to construct it when called on. Their Lordships have agreed to allow us four years for the construction of the compensation harbour, provided we cross the old harbour of Dunleary on a series of arches, the expense of which would be in all probability as much as the construction of the compensation harbour. Therefore, in order to obtain four years' delay, we should have to incur an expenditure of several thousand pounds.

1470. Can the work be completed without taking off that part of the harbour?—It cannot.

1471. And are you still of opinion and prepared to say, that no injury would arise to the public from taking off that part of the harbour?—I consider the injury so trifling that it does not bear a comparison with the advantages which the public would derive from the extension of our railway from its present *terminus* to the wharf now being constructed by the Commissioners, particularly as regards passengers going to the packets, the conveyance of the mails, and above all making the railway applicable to commercial purposes.

1472. Which you will not be able to do unless this facility is afforded you?—Certainly not. I mentioned on the last day, with respect to commercial purposes, that I believed as soon as the wharf was finished, and our railway extended to it, that the London and Liverpool steam vessels would find it to be clearly to their advantage to come and discharge there; and I gave some reasons to which I would wish to add, that in addition to the injury which steam vessels sustain from taking the ground, which they cannot avoid in going up the river Liffey, the intercourse by steam between Liverpool and Dublin is so controlled by the tides of the Mersey and the Liffey, that, generally speaking, the steamer loses the tide at either port. If she sails as soon as possible with the tide from Dublin, she frequently arrives too late at Liverpool to save the tide, and sailing from Liverpool they are obliged to put in at Kingstown Harbour, and wait there for the tide to ascend the river Liffey; and I have no hesitation in saying, that three steam vessels between Kingstown and Liverpool would do as much work as four steam vessels between the river Liffey and Liverpool, because they could sail at such times as to save their tide into Liverpool; and Kingstown Harbour, being accessible at all times of the tide, there, of course, would be no difficulty. This is very important in the export of cattle by steam boats, which is a very extensive part of our Irish trade; and when cattle have been delayed in these boats, for any length of time, they are materially injured in their quality, and many of the exporters have told me that they would rather pay double freight if they were sure of having them landed without delay. There is another point of view in which the connexion of the railway with the wharf in Kingstown Harbour is important; nearly the whole of the intercourse between

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Dublin and Liverpool is carried on by the City of Dublin Steam Company, and who are extensively engaged in the navigation of the Shannon and the Grand Canal; and the railway affords an exceedingly desirable and easy communication between the Grand Canal and Kingstown Harbour.

1473. Is there any direct communication at present between the Grand Canal and the railway?—It crosses the Grand Canal dock. We have gone to a great expense in crossing the dock to make it applicable to commercial purposes, all of which will be useless unless we succeed in carrying the communication to the wharf at Kingstown Harbour.

1474. What are the dues payable to the city of Dublin corporation and the Ballast Board for vessels coming in?—I think the Ballast Board corporation receive a shilling a ton on all goods discharged in the port of Dublin. I may mention, that the Ballast Office corporation consider Kingstown Harbour as part of the port of Dublin; although they have never contributed any thing to the cost of that harbour, they collect the same dues upon all vessels that discharge there as if they went up the river Liffey.

1475. Was the whole expense of Kingstown Harbour defrayed by Government?—It was defrayed by Government. The port of Dublin contributed a very large sum to it, and until our communication with England was put upon a footing of coasting trade, upwards of 80,000*l.* had been contributed by the port of Dublin alone by a special local assessment; but I am not aware that the Ballast Board contributed any portion of the funds for its construction.

1476. Is that 1*s.* per ton, exclusive of light dues?—Yes, light dues are a separate tax.

1477. Have you any objection to put in the Memorial you presented, and the Letter you received in answer from the Lords of the Admiralty?—Not the least.

[*The following Documents were put in and read*:]

TO the Right Honourable the Lords Commissioners of the Admiralty.

The MEMORIAL of The *Dublin* and *Kingstown* Railway Company most respectfully showeth,

THAT your Memorialists in the year 1832 obtained an Act of Parliament, empowering them to make a Railway from Westland Row, in the city of Dublin, to the western pier of the old harbour at Dunleary, which latter point they fixed on under the expectation then very generally entertained, arising from the plans published by the Harbour Commissioners, that the landing pier would be constructed on the western side of the harbour, and nearly at the point to which their road now extends:

That subsequently the Government authorities determined on constructing a wharf for landing goods and passengers in front of the new harbour, at a distance of nearly half a mile from the site originally proposed, and which is now nearly finished:

That in consequence it became indispensably necessary, as well for the public convenience as the interests of the Railroad Company, that their line of road should be extended to the new wharf, as without such extension the road and harbour could not have any convenient connexion either for the conveyance of passengers or goods; Your Memorialists therefore, with the consent of the Commissioners of the harbour, obtained last Session an Act empowering them to extend their line to the new wharf, subject however to the control of Your Lordships as to the mode of crossing the old harbour of Dunleary:

That in June 1834 Your Lordships were pleased to grant this permission, on condition that the Railway Company should at the same time make an addition to another part of the old harbour, according to a plan and specification prepared by Mr. Cubitt, and which addition would cost your Memorialists about six thousand pounds.

That the Memorialists have constructed their Railway, which is now at work, to the extent authorized by their original Act of Parliament, at an expense of upwards of 200,000*l.*, and are now about to proceed with the extension to the new wharf, but being advised by several scientific and professional persons that the required enlargement of the harbour is not necessary for the public service or accommodation, and being aware that the Commissioners of the said harbour concur in this opinion, and are ready so to report to Your Lordships, as Memorialists are authorized by them to state, especially by Colonel Burgoyne, the chairman of that Board, who is at present in London attending a Committee of the House of Commons on Public Works in Ireland:

Your Memorialists, therefore, most respectfully request Your Lordships will be pleased to grant them permission to proceed with the extension of the Railway without requiring them in the first instance to construct the addition to the old harbour; and they are ready to give the most ample security for its construction, if after the completion of the Railway Your Lordships shall consider it necessary for the public service or accommodation.

[*To*

[*To which the following Answer was returned:*]

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Gentlemen, Admiralty, 22 May 1835.

I HAVE laid before the Lords Commissioners of the Admiralty your Memorial respecting permission to proceed with the extension of the Dublin and Kingstown Railway, without requiring you in the first instance to construct the addition to the old harbour of Dunleary, in compensation for the portion proposed to be cut off, together with a Report thereupon made by the Hydrographer who was directed to survey the same, as was communicated to you by Mr. Dawson's letter of the 8th ultimo; and I have it in command to acquaint you, that their Lordships, being desirous to afford every facility which may add to public convenience, and anxious at the same time to provide, as far as possible, against any thing being done which could destroy, or materially abridge, the utility of this harbour, now so valuable to small craft, cannot accede to your request, so far as to sanction the forming any solid construction across the basin; but they are prepared to allow the Railroad to be continued across the basin of Dunleary Harbour, provided it be supported on arches of not less than twenty feet clear span, with piers of not more than four feet in thickness, and not exceeding fifty-five feet in breadth.

I am, however, to add, that before any portion of this work be undertaken, due security must be given to the satisfaction of their Lordships, that within the space of four years the compensation harbour, as proposed in a previous Memorial, and as detailed by Mr. Cubitt in the plan and specification which accompanied it, and approved by their Lordships in their Secretary's letter of the 3d of June 1834, should be finally completed; and their Lordships' desire that you will lose no time in communicating to them the nature and amount of the security which you may be prepared to enter into for this purpose.

I am, Gentlemen, your obedient Servant,

John Barrow.

1478. In your evidence, on Friday, you stated that great benefit resulted from the expenditure on the Kingstown Railway, inasmuch as it formed a kind of school for the workmen?—Yes, I conceive great advantages, indeed, were derived by those workmen, from their experience, both in being accustomed to a better description of tools, and also from improved methods of carrying forward their operations in various ways.

1479. And they saved money also, which they carried home with them when the work was over?—Very many.

1480. Is it not evident that if these works were carried on in Ireland and executed, it would have not only the effect you have mentioned, but be the means of affording permanent employment for the poor by increasing cultivation; is it not evident that those works would be attended with the most signal advantages?—I have no doubt whatever of it; after the men had been a few months in our employment, we have always found an improvement in their manner of working, and in their appearance in every respect.

1481. Would not the facility of increased water communication be of essential benefit to the country?—I consider it would be an object of the first importance in Ireland.

1482-3. How would you propose to afford those facilities? is it by means of improving the navigation of rivers or by making canals, or by both?—By both. I consider the extension of canals of very great importance; whether we consider that a very large proportion of the cost of such extension is paid in wages to actual labourers, or whether we consider them with reference to the facilities they afford in the improvement of waste lands, more particularly the drainage of bogs, or in their ultimate consequences. I consider their introduction, and above all, their extension, as a matter of very great importance indeed. Our engineers, generally speaking, are partial to running canals through bogs; many years ago they were afraid. The consequence has been, that in some instances a bog has subsided to the extent of 35 feet, which is the case along some parts of the line of the Grand Canal, where the canal was originally constructed in a very deep cutting; it now stands on a high embankment from the subsidence of the bog; and in many places they cut it away for turf; and in the neighbourhood of Tullamoore, where the bog was originally so soft as, to use the expression of a Witness that was examined on the inquisition, that it would "*bog a snipe*," a stratum of brick-clay has been discovered, which is now worked to a considerable extent; thus affording not merely employment for a great number of people, but great advantage to the revenues of the canal; and in extending the Grand Canal from Shannon Harbour to Ballisnasloe, a similar result has taken place within a few years, but not to the same extent; I believe the subsidence of the bog has been from 18 to 20 feet.

1484. Do you mean to say that the bog is 30 feet lower now than when the canal was first made?—Yes.

1485. Is there also a large brick manufactory there?—Yes, at Tullamoore.

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1486. In the first instance, the subsidence occasioned by the drainage of the bog, the water communication caused it to be cut away for turf, and the consequence is that there is now most valuable ground in the immediate neighbourhood of the canal?—Yes.

1487. What is the average depth of bog at Robertstown now?—I cannot tell.

1488. What means have you of knowing the bog has subsided to the depth of 30 feet?—It was given in evidence before a Committee of the House of Commons, on Mr. Spring Rice's inquiry.

1489. You do not speak of your actual knowledge?—Not from actual admeasurement; I made inquiries of the directors of the Grand Canal Company, and of the engineer of the Grand Canal Company, and they both agreed as to the fact.

1490. And the consequence has been that the lands on both sides of the canal have been greatly improved?—Yes.

1491. In every case where a canal has been cut through?—In every case.

1492. In your opinion, would it be beneficial to extend the canal communication in Ireland?—Unquestionably.

1493. To what extent would you carry it?—I should propose that it should be carried to any extent that you can get private capital to co-operate with Government in their extension. I do not think the mode in which Government has hitherto promoted the extension of canals was judicious; they lent the entire of the cost, taking the security of the tolls on the portion of the canal that was so to be constructed. When you consider that the last ten miles of the canal must, of course, be the most unproductive, it is not to be wondered at that the security was found insufficient. In consequence of this apparent failure, capitalists are deterred from promoting public works of acknowledged utility. Although they appear to have been unproductive, in point of fact they are exceedingly productive. One of the extensions from Shannon Harbour to Ballisnasloe is paying more than 10 per cent. on its cost. Thus, if we suppose the distance (which is nearly the fact) from Dublin to Shannon Harbour to be 90 miles, and that the extension to Ballisnasloe is ten miles, and if the rate of toll be the same on both, it is clear that the additional trade brought down the main trunk will be nine times as great as the tolls received merely upon the extension. Now, if we take credit for the additional tolls which the parent trunk thus derives, the extension is eminently profitable.

1494. Do you think that the Government should take a security on the entire tolls thus brought to the main trunk?—I think they might have been fairly entitled to a proportion of the whole; but I should rather, in all cases, endeavour to induce parties to come forward with their own money, and co-operate with Government in the promotion and extension of works of the kind. I think it is essential, in order that Government should have the works economically and judiciously constructed and well managed.

1495. What works do you think will entitle the parties to call upon Government for assistance, either by way of loan or grant, or both?—For the introduction and extension of canals and railways, or public works of that description, which tend to facilitate intercourse, and are so valuable in their ultimate results, I think, if Government were to grant one-third of the cost, lend one-third of the cost at whatever rate of interest they might be enabled to borrow, and leave private capitalists to furnish the remaining one-third, an impetus would be given to works of that kind in Ireland to a very great extent, and I have no doubt whatever a very large sum of private capital would be subscribed for the extension of canals, and the introduction of railways, upon these terms.

1496. If those undertakings are as profitable as you state, how does it happen that private individuals are not induced to come forward?—The principal cause is want of confidence, arising in a very great degree from the failure of the two great canals, and the disastrous results of the St. Patrick's Assurance Company. I believe nothing would tend so much to restore confidence, and thereby tend to the promotion of desirable public works in Ireland, as some Irish undertaking being successful; and in that point of view, I consider the success of our little experiment of the Dublin and Kingstown railway of very great importance.

1497. Do you not think it would induce the capitalists of Ireland to advance their capital, if Government had an interest in watching over the expenditure, and taking care that there was no injudicious outlay?—Unquestionably, not merely in Ireland, but we should be able to get a large amount of capital from this country under such circumstances.

1498. Do you know of your own knowledge that you would get capital from this

this country under such circumstances?—I have no doubt of it; I know that, under circumstances of considerable discouragement, a large portion of the capital of the Dublin and Kingstown railway was subscribed in Lancaster, Liverpool, Birmingham and London, and the success of that undertaking would enable us with much greater facility to raise a very much larger sum.

1499. There was first a personal confidence, which afforded you facilities for it?—Yes, there was some personal confidence in the first instance, and that has probably been increased by the result.

1500. Do you mean to say that you got any additional subscriptions after Government gave the loan?—We did, and if it had not been that the parties were aware that Government was assisting us both by pecuniary aid and personal superintendence, a large proportion of the sum would not have been subscribed.

1501. Do you mean to say that the subscription list which you produced on the passing of the Act to the House of Commons, was not filled up till after the passing of that Act and you got the sum from Government?—The subscription list was filled up in the first instance only to the extent required by the Standing Orders of the House of Commons, which was about 75,000*l*. After the Commissioners of Public Works had agreed to make the loan to us, we raised the remainder of the capital principally in England, for there was very little additional subscription in Ireland.

1502-3. Have you known many other cases in which English capital has been employed in Ireland on Public Works in the improvement of estates or in the improvement of extensive manufactories?—I have not.

1504. Is there not some capital in Ireland which would be forthcoming for this purpose if these advantages were held out to them?—There is a large amount of capital in Ireland which would be forthcoming if we had confidence.

1505. To what do you attribute the failure of those two canals?—The cause of failure was not so much that the canals were constructed of their present dimensions, which is the generally received opinion, as that the lines were injudiciously laid out, running parallel to each other to a considerable extent; the want of skill in the principal engineers caused these canals to cost a very much larger sum than they ought. It has been given in evidence by Mr. Mullins, that the Grand Canal could now be constructed at from one-fifth to one-sixth of the entire cost. The Directors of those two canals were not obliged to exhibit any accounts, nor did the proprietors know in what state their funds were. The Directors continued for many years borrowing money to pay the dividends, and at the time when the net income of the canal was not sufficient to pay the interest of the debt. If the Grand Canal had been constructed for the sum which Mr. Mullins states it might now be, and was in the enjoyment of the present income, it would pay a dividend of 8 per cent. if not more.

1506. In your opinion, would the superintendence of the Board of Public Works give great confidence to undertakers to come forward?—It would.

1507. Would it be beneficial that either the Grand Canal or the Royal Canal should be extended further into the country?—Unquestionably; I consider the extension of our existing canals of much greater importance than the construction of new ones. I would say, that a canal communicating with Dublin, 100 miles long, is much more valuable, in a national point of view, than two canals of 50 miles. This is a question which England is interested in to a very considerable extent. When we consider the dense manufacturing population of Lancashire and the neighbouring counties, it is evidently a matter of no small importance that we should have the means of conveying our agricultural produce on the cheapest possible terms to Dublin.

1508. And, on the other hand, that the manufacturers in England should have the opportunity, at the least cost and expense, of sending their manufactures into the interior of Ireland?—Yes.

1509. Would not the benefit be reciprocal?—Unquestionably.

1510. What would be the extensions you would recommend as likely to return profit?—Two extensions of the Grand Canal were surveyed by the late Mr. Killaly, one from Ballinasloe to Loughrea, and the other from Mount Mellick to Roscrea; both would be very desirable.

1511. Did you ever hear of any extension from Ballinasloe to Tuam?—No; I never have.

1512. Do you know enough of the country to be able to state any extension of the Royal Canal that would be desirable?—I am not much acquainted with the affairs of the Royal Canal Company; of course, any general observations as to the advantages which must arise from the extension of our canals, are equally applicable

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to the Royal Canal as to the Grand Canal; and I have no doubt that it (the Royal Canal) might be extended with great advantage to the country and to the proprietors of the canal.

1513. In addition to this canal communication, would not great and beneficial results arise from the improvement of the navigation of rivers in Ireland?—I consider the improvement of the River Shannon is a matter of vast importance in every point of view in which it can be considered, well worthy the best attention, and the most liberal assistance on the part of Government. It would also be extremely desirable to afford some assistance for the improvement of the navigation of the Barrow.

1514. Would you not also recommend the improvement of the tributaries of the Shannon?—I have not seen them; but some of them might doubtless be improved with advantage.

1515. Has it ever occurred to you how the necessary expenditure for the improvement of the River Shannon should be raised?—My opinion is, that the navigation of the River Shannon should not be encumbered by tolls or any interference whatever; and of course private capital is not applicable to its improvement when no direct return is sought. I believe that the best, and ultimately the most desirable method by which Government could improve its navigation, would be by a liberal grant.

1516. For the whole sum?—Yes, for whatever sum would be necessary.

1517. Do you not think it is injurious to the general trade of the Shannon that a considerable portion of that should be assigned for the monopoly of a private company?—I am not aware of any positive disadvantage that has happened from that, but I am decidedly of opinion that the navigation of a great river like the Shannon should be perfectly free in all respects, whether as regards tolls or the interference of the Grand Canal Company, or any other body whatever, and that if Government should make a liberal grant for its improvement, it should be applied under the control and direction of its own officers.

1518. Do you not think that the persons in the neighbourhood of the Shannon, who would be considerably benefited by the improvement of the navigation, should also be obliged to contribute with Government for the improvement of the navigation of the Shannon?—The advantage to be derived by the proprietors along the banks of the Shannon would be so exceedingly unequal, that I cannot see how it is possible under such circumstances to apply any system of taxation that would be equitable.

1519. Why not apply a system of taxation in proportion to the benefits derived?—It would be very difficult to ascertain the amount to each.

1520. If you did not charge the individuals, would you not charge the counties or the parts of the counties through which the river runs?—The same objection would apply, and probably to a greater extent, because the remote portion of the county would derive little advantage, and the taxation would spread over all.

1521. With reference to building a pier on the Shannon, do you think it would be inequitable to charge the barony or the district to which the pier affords an outlet for its produce, with the expense of its erection?—I am not sufficiently informed to answer the question.

1522. In addition to this increased water communication, which you so strongly recommend, would not the making of roads of all descriptions, railroads and others, be of the greatest importance, and be attended with the most salutary benefit to Ireland?—I consider the making of roads to be an object of paramount importance to every thing else.

1523. Does Ireland stand in need of them?—Unquestionably, in many districts.

1524. Can you state any district in particular?—No, I am not acquainted with the remote districts in Ireland.

1525. Must not the making of all roads be attended with signal advantage?—Yes, the advantage is so great that I can scarcely conceive a country civilized, that does not afford adequate means of internal communication.

1526. In addition to the benefit to be derived by the district itself, would not the revenue be considerably increased?—It has been proved that the result has been uniformly that the revenue has considerably increased.

1527. Have you ever considered as to the manner in which the expenditure for making these roads should be obtained?—No, I have confined my attention very much to the best means of employing private capital in works of this kind.

1528. Has your attention been chiefly applied to railways?—Canals and railways

1529. Your

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1529. Your attention has been directed to railways; is there any method you would recommend at present for railways to be introduced?—I think that the best method for the introduction of railways would be to lay out some great arterial line of communication, if I may so express myself, one that would afford the greatest amount of convenience to the country through which it would pass, without much reference to particular towns. It has been suggested by Mr. Cubitt, on his late visit to Ireland, to make Valentia Harbour the *terminus*; and it is a curious fact that such a line would also be the best that could be selected to afford the greatest amount of accommodation to the South and West of Ireland; whilst its *terminus* at Valentia Harbour would give it an importance in a national point of view unequalled by any similar project.

1530. Then you have turned your attention to the construction of this great national work of a railway from Kingstown to Valentia?—I have, and have brought the subject under the attention of the Directors of the Dublin and Kingstown Railway, and so far succeeded in impressing them with its importance, that they have entered into resolutions to receive subscriptions and to have a survey made of the line, and inquiries made whether it would be desirable that such a work should be prosecuted.

1531. Have you those resolutions with you?—I have.

1532. Be so kind as to hand them in.

[*The following Resolutions were then handed in to the Committee:*]

"AT a Special Meeting of the Directors of the *Dublin* and *Kingstown* Railway Company, held at their Office in Westland-row, in the city of Dublin, on the 15th day of May 1835,

"It was resolved,—

"THAT the project of establishing a Railway communication from Kingstown Harbour through the South and South-west of Ireland to Valentia Harbour, in the county of Kerry, claims the serious consideration of all who are interested in the welfare of Ireland and are sensible how deeply her condition must ever affect the general prosperity of the British Empire.

"That exclusive of the immediate effects of such a work in facilitating internal intercourse, encouraging trade and agriculture, and promoting the general improvement of the districts through which it would pass, its tendency to render the harbour at Valentia available to purposes of great national utility demands investigation.

"That in connexion with the proposed undertaking, and with the various railways completed or now in progress of construction through the different parts of England, it is conceived that Valentia Harbour, which is the most westerly and considered by some of the first nautical authorities one of the safest and most accessible ports in Europe, is capable of being rendered the great packet station of the United Kingdom, through which the intercourse between the British Islands and the New World, as well as the South of Europe and the Mediterranean Sea, might be carried on, exempt from the delays and dangers of a channel navigation, and with a degree of certainty, safety and expedition wholly unattainable by any other means; the communication between London and New York for example, which now usually occupies upwards of a month, might it is conceived be effected by the establishment of railways and steam vessels in little more than one-third of that period.

"That it appears expedient that preliminary inquiries should be instituted and surveys taken, with a view to ascertain the practicability of the undertaking, and to determine upon the line best calculated to combine the various advantages of which it may be susceptible; but we are of opinion, that a leading object of the inquiry should be to determine upon the most eligible course for a main railway to connect Dublin and Valentia without any considerable deviation from the most direct line, at the same time affording the utmost facilities to the principal towns of the South and West of Ireland to construct upon their own behalf connecting branch railways between their respective localities and the main trunk, the advantages of which, in their communication with the capital and the other towns along the line, would thus be extended to them at a comparatively small expense.

"That as the success of such an undertaking would be productive of incalculable advantages of the leading interests of the empire, while private capital would obviously be unequal to its execution, it can scarcely be doubted that if upon due investigation its practicability be ascertained and its tendencies approved of, the encouragement of Government and the aid of Parliament, co-operating with individual capital and enterprise, will be liberally afforded in carrying this great national project into practical effect.

"That a subscription list be opened for the purpose of raising funds to defray the expense of the preliminary inquiries and surveys; it being provided that the subscribers shall not be held liable for any demand beyond the amount of their subscriptions.

"That the Directors of the Provincial Bank of Ireland be respectfully requested to act as a London committee, to receive subscriptions and to co-operate with this board in carrying the foregoing resolutions into effect.

"That Messrs. P. Mahony and James Pim, jun. be hereby authorized to confer with the Directors of the Provincial Bank on this subject."

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1533. Then your plan would be to have one arterial railway, its object being to connect Dublin with the westernmost safe harbour of Valentia, and look for local advantages by branch railways to the great one?—Yes; I consider, by adopting that mode, a great saving would be effected.

1534. From your knowledge of Ireland, is it your opinion that that would present so many great advantages to both countries, England and Ireland, as to justify the making a survey at the expense of the Board of Works?—I should think it would: at the same time I would not like to establish a precedent, that the Board of Works should be called upon to defray the entire expense of any preliminary inquiry. I should wish in almost all cases the parties promoting public works should be obliged to put their hands in their pockets, and give the best evidence of their sincerity by so doing. I think it would be highly desirable if the Board of Works were empowered to co-operate with such parties in preliminary inquiries.

1535. What quantity of the expense of the inquiries are you able to state would be produced by private individuals for these surveys, which would be readily and cheerfully given?—My impression is, that the entire amount would be given. It is not so much the want of the pecuniary assistance of the Board of Works, as giving their sanction and co-operation in attending the inquiry, and the effect the result of those surveys and inquiries would have on the public mind, when it was known to be undertaken under their superintendence, and with their assistance; and I think they ought to contribute one half of the expense.

1536. All you ask from Government then is their sanction, and the confidence which would result from the sanction of Government?—I should like the principle to be established, that the board should have the power of co-operating with other parties.

1537. Has any estimate been made of the probable expense of the great line from Dublin to Valentia?—No estimate could be made till the survey was made.

1538. It must of course be very considerable?—Yes.

1539. How many miles is it?—Two hundred miles in length, and I think we may roughly estimate it at 15,000*l.* a mile, which would be 3,000,000*l.* sterling.

1540. Would the line be the same as the Limerick railway?—Not exactly the same.

1541. Would not a certain portion of the route to Kilkenny be included in the line you speak of?—Undoubtedly; by a branch railway or otherwise, there is no doubt the intercourse between Kilkenny and Dublin would be carried on along this road.

1542. How much do you suppose of the great line to Valentia would be made use of in the line to Kilkenny?—More than four-fifths of the distance between Dublin and Kilkenny.

1543. So that it would serve the common purposes of both so far?—Yes.

1544. From your knowledge of the localities, what opinion have you formed of the advantage of completing such a line as you have pointed out?—Valentia Harbour is the most western port in Europe; it is 12½° longitude further west than London, and 5½° more west than Falmouth.

1545. Would not Galway be as westerly a port as Valentia?—No; Valentia is the most western port in Europe, and possesses the advantage of having two entrances.

1546. And of perfect security?—I believe it to be an exceedingly safe and easily accessible harbour.

1547. Are you acquainted that with every wind, except the wind directly off the shore, which of course makes smooth water along the coast, that Valentia harbour is perfectly accessible at all times of tide?—I have understood so.

1548. What would be your plan for obtaining a sufficient sum of money to carry on this great work?—If the result of our inquiries should prove satisfactory, I propose that an application should be made to Government to know how far they would be inclined to assist a project which would manifestly be of so much advantage to Ireland, and of such great importance to England in facilitating the communication with America, with the South of Europe and the Mediterranean.

1549. The entire of the Western world?—Yes; the amount of assistance that I think would be absolutely necessary to induce parties to subscribe their own funds, would be to the extent I have previously stated; namely, a grant of one-third of the cost, a loan of one-third of the cost at whatever rate of interest Government might be able to borrow; and that the private capitalist should provide the remaining one-third.

1550. The

1550. The entire of the two-thirds being an advance from Government, part should be first reimbursed to them, at a certain rate of interest and a certain per centage?—Yes.

1551. By that means the proprietors would have the advantage of the one-third which the Government made as a grant; would not Government in that case be entitled to stipulate that the tolls should not exceed a certain per centage?—I have always been of opinion that the parties managing a concern of that kind should have the entire control of the tolls, and if they consulted their own interest they would find that low tolls would produce them the greatest revenue.

1552. Do you not think it reasonable in case the proprietors received on their advances more than 10 per cent. that they should pay to the nation the amount of the grant before they derived higher profit than 10 per cent.?—I think such a stipulation would be exceedingly fair and reasonable; the amount, under those circumstances, to be repaid by certain fixed instalments.

1553. And likely not to interfere with the obtaining sufficient capital to complete the line upon the terms stated by you?—I think that would not throw any difficulty in the way.

1554. You must be aware that the prospect of repayment of any thing advanced by Government to Ireland would be the greatest inducement, and do away with a great many difficulties in getting the grant?—Clearly.

1555. Have you any thing else to suggest as to the pecuniary inducement to Government to make the grant?—The great inducement to Government should be exclusive of the advantages which are common to all other undertakings of the same kind in Ireland, providing for the employment and improving the condition of the people, and so forth; that it would facilitate to such an extent all our commercial relations with the New World and the South of Europe; the consequences are manifestly of great importance, in a political point of view, whether with reference to the state of Ireland or otherwise.

1556. Are you aware that, in a political point of view, for the maintaining, and when it is necessary restoring, tranquillity, that the facility of transferring troops must always be a great object of the Government in such a country as ours?—It is; and strong representations have been made to Government with reference to Valentia Harbour some years ago, unconnected with the railway communication. I believe the general practice to be for troops to serve two years in England, and they are then sent for two or three years to Ireland, and then generally sent to the colonies; and for want of desirable places of embarkation, the practice has been, at considerable expense and inconvenience, to have the principal depôt at the Isle of Wight, in consequence of the facilities which it affords for embarkation; at the same time it is one of the dearest, if not the dearest, depôt in the United Kingdom; and if there were the means of embarkation at Valentia, and a facility of communication with it, the stream would then go in its natural channel.

1557. Do you not think the employment of people upon public works would go far to tranquillize the country, and to render unnecessary the transmission of those troops to Ireland?—Undoubtedly the effect of such an expenditure upon Public Works would be to improve the condition of the people, and thereby tend to preserve and restore tranquillity in the country. We always find the people tranquil when they are well fed.

1558. Would you not think it necessary, after the completion of this work, to keep a certain number of Public Works in operation, to perpetuate the good effects you have spoken of?—The inevitable consequence of the construction of Public Works, which tend to facilitate intercourse and the conveyance of produce and manure, is to provide increased employment for the people; and the men in the first instance become better labourers while on these works, and the consequence of their construction is, the means of providing future employment of a permanent character.

1559. Then it is not so much to the actual employment of the labouring classes of the population that you look for the improvement of their habits, as the increased communication?—To both; I consider the improvement of their habits by increased communication exceedingly important, at the same time I am not blind to the advantages that must necessarily arise from having constant employment as a necessary consequence arising from the construction of the works.

1560. It tends to provide employment?—Yes.

1561. Is it not found, in the execution of any great work, that on its termination the sudden cessation of the employment occasioned by that work has very often caused

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caused the people employed to become in a worse state of poverty?—I have never known a case of that kind. I have made inquiries of many contractors for great works, and they have uniformly said, that the practice is, towards the close of any great work of the kind, that the men are drafted off gradually; they are not usually dismissed in very large numbers, and their improved habits as workmen enable them to obtain employment in their respective districts where they come from with much greater ease than before, and they locate themselves in various ways in employment connected with the works.

1562. Is it the usual practice of contractors at present, towards the close of the work, to draft them off in small lots to different parts of the country, and at what period of the work do they begin that operation?—They are dismissed by degrees.

1563. Is it the practice of contractors to do so?—I believe it is, uniformly.

1564. Does not the increased cultivation of the land produced by making the roads give employment for the people?—Unquestionably.

1565. Have you found that labourers in Ireland were sufficiently skilful in doing their work, or that they become so?—I believe them to be as skilful as any men upon the face of the earth.

1566. Are you obliged to have any labourers from England now with respect to the railway?—Connected with the locomotive engines, we are obliged to have some English engineers, but we are training up young men to fill their places.

1567. With a prospect of success?—I may say with a certainty of success.

1568. Would not work of this kind, by affording employment to the people, tend very much to diminish the number of labourers that annually emigrate to England for employment?—Undoubtedly.

1569. And thus diminish the burden on the poor rates in this country?—If the Irish labourer tends to increase the amount of poor rates, it would tend to lessen the burden.

1570. Is not the great want in Ireland the want of a demand for labour?—Undoubtedly, it is one of the greatest evils we have to contend with.

1571. And is not the low price of wages also a necessary consequence arising from it?—Yes.

1572. Would not wages be raised by these Public Works?—Yes, to a certain extent; by increasing the demand for labour, the labourer would be able to obtain a higher rate of wages.

1573. And their condition would of course be much improved?—Yes, that would be the natural result.

1574. Can you state what is the general rate of wages?—No.

1575. What did you pay on the Kingstown railroad?—Sixteen-pence a day was the lowest rate of wages; and we endeavoured to employ the men as much as possible on task work, by giving them small contracts, by which they were enabled to earn a much higher rate.

1576. Did you find that beneficial to the undertaking?—Unquestionably.

1577. Did you pay them weekly?—We stipulated that the money should be paid weekly, and that each man should be paid his own wages; that is to say, each individual should be paid by a person on behalf of the contractor the precise amount of wages which he himself had earned; that it should not be given in the bulk to one man to divide with the others, which, generally speaking, sends them to public-houses to make the distribution, where they would spend a considerable amount of their wages before they left. The money was handed to them and paid while on their work; a practice which I think extremely desirable to follow in all public undertakings of the kind.

1578. Are you of opinion that money payments are always desirable?—Yes, and I should add that the money was paid on the Friday, to enable them to provide their necessaries at the Saturday's markets.

1579. From your knowledge of Ireland, can you conceive any public undertaking more useful than the extension of such railroads across the country as you have spoken of?—I cannot imagine any project which has so many and such strong claims for the support of every person who wishes well to Ireland; there are features of peculiar interest in it which I never heard of in any other public undertaking.

1580. Having considerable experience in the money market in Ireland, have you any doubt upon the plan you suggest, one-third grant, one-third loan, one-third private subscription; that the one-third private subscription, whatever the amount might be, there would be no difficulty in getting?—I am quite satisfied if

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our directors, after the survey has been made, and the inquiries which they have in contemplation, appear satisfactory, should recommend the project, they will not find much difficulty in raising the requisite funds.

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1581. Have you any other suggestion to offer to the Committee?—I think it may be satisfactory to the Committee to be informed, that notwithstanding many predictions, that there never was any attempt whatever to injure our works on the Dublin and Kingstown Railway, either during their construction or since they have been opened.

William Cubitt, Esquire, called in; and Examined.

William Cubitt, Esq.

1582. I BELIEVE you are a civil engineer?—I am.

1583. I believe you have been engaged in Public Works in England and Ireland?—Yes.

1584. Are you now engaged in any?—I am now engaged in carrying the Ulster Canal into execution.

1585. Do you find any difficulty in getting a sufficient number of Irish labourers?—No.

1586. Do you find any difficulty in bringing them to an adequate degree of skill to do the work?—Not any.

1587. Do they acquire that skill as rapidly as labourers in this country?—They do, with the introduction of about one-tenth of experienced English workmen in the same line of business.

1588. Why do you want English workmen?—To teach them the operation.

1589. Do you mean to say they acquire as rapidly as raw English labourers would sufficient skill?—I find them quite so, and there is a great advantage in pursuing that mode of work with Irishmen, in my opinion.

1590. What do you pay as wages per day to the Irish labourer?—The wages for day work varies from 1*s.* to 1*s.* 6*d.*, but at task work they will earn upwards of 2*s.*, and by employing workmen in districts through whose land we pass, every thing goes on much more quietly and more satisfactory to all parties.

1591. Then in time it would not be necessary for you to have any English labourers?—Certainly not. It frequently happens that when men get experienced in canal work, and have not sufficient work of the same kind in that country, they emigrate to Canada and America after being taught in Ireland, when, if sufficient employment of the same kind was held out in that country, I believe they would remain there at good wages.

1592. Have you directed your attention to the railway from Dublin to the harbour of Valentia?—Yes, I have, and I think I might say that the inquiry upon that subject originated in a letter I wrote two or three months ago from Dublin to an officer in the Admiralty, stating the advantages that would result from such line of communication; I had heard of the scheme of a steam navigation from Valentia to Nova Scotia, but not that of a railway from Dublin to Valentia.

1593. Can you state shortly what the particular and striking advantage would be of such a railway?—I consider it in the light of a main line of railway without reference to any particular place; as a main artery from one to the other, and which would connect London with Valentia *via* Dublin, and afford the means of passing despatches or goods or troops in the quickest manner possible from one part of the kingdom to the other, and also serve as the means of bringing the great towns in the southern and west parts of Ireland in immediate connexion with Dublin by means of branch railways coming into the main line.

1594. Would not the facility of communication to all foreign parts be very much increased also?—Certainly; Valentia is the most western point in Ireland, and the meridian of Valentia is west of Cape Finisterre; consequently vessels, sailing packets, can always take their departure from Valentia with any wind, when they could not get out of the English and Irish channels.

1595. Do you know that the harbour of Valentia itself has great capabilities?—I understand all that from the charts; I have not seen it personally. Also it would afford a communication with other parts of Europe *via* Liverpool and Dublin to the East and West Indies, to the Mediterranean and the Americas.

1596. And of course all the expense, the wear and tear of the packets at Falmouth from thence till they clear Cape Clear, would all be spared?—Yes, and what is of great importance, the time would all be saved.

1597. Then, if I understand your evidence, you look upon this work as one of very

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very great importance to Great Britain as well as Ireland?—Yes; I look upon it as almost making the south and west parts of Ireland a piece of this country, the communication would be so direct and so quick.

1598. With respect to the branch roads joining the main line, which you call the artery, what would you do as to them?—I consider the artery line as the great work to be done with the assistance of public money, and an account should be kept of all the traffic upon that line. All the branches would be subsidiary to it; they would be local concerns only; there would be a constant carriage of goods and passengers on the main line, which would go to the general account; and I think that one main line with branch railroads would be better than a separate railway from Dublin to different places.

1599. Would the economy be very considerable?—The economy would be very great in time and money.

1600. Have you made any calculation of the difference?—A calculation of the difference I am not able to make without going particularly into the details.

1601. Are you aware in the United States of America railroads of considerable extent have been made at the expense of the public?—I understand a great deal is done in America by the States.

1602. And have not such undertakings been attended with profit?—I understand so; I think the Americans are wise in making railways; having a new way to make altogether, they do it to so much greater advantage than in an old country where there are many means of communication established.

1603. Do you think that Government ought to be the originators of this line, and that it should not be left to a private company?—I do not think Government should be the originators; I think the origin should be from private enterprise, supported by Government. I do not think Government should turn the undertakers of railways of any kind; yet I think that Government should support it upon some definite plan.

1604. What degree of support do you think Government should give to it?—I think that Government should give a grant of one-third, and a loan of one-third, at three per cent., with a sinking fund of not more than two per cent., making five per cent. in all.

1605. Would you place any limit upon the dividends received by private parties subscribing their capital?—I would till such time as the loan is paid off.

1606. Do you know at what rate Government has lent money to carry on the Leith Harbour?—They lent money formerly to the Leith Harbour, immediately from the Exchequer, at three per cent., with a sinking fund of two per cent. With respect to that harbour, the question is now under the consideration of a Select Committee of the House in what way the terms of the grant should terminate.

1607. Where the Government in America does not make a road, does it not allow a certain sum for the original survey; are you aware of that?—I am not.

1608. Do you think, after the preliminary survey has been made, if the thing goes on, that it would be proper that a sum should be advanced from the public purse towards the prosecution of the necessary inquiries?—Yes.

1609. Do you think there is any chance of obtaining private capital in England for carrying on this railway?—I should think perhaps some.

1610. To what cause do you attribute the indisposition of investing English capital in Ireland upon Public Works?—I consider the English capitalists do not conceive their capital is quite safe; that is the general feeling; men will not readily invest their money in Ireland; they do not consider it quite safe.

1611. Would you propose to carry into effect the whole at once, or by small portions at different intervals?—The whole at once would inspire the greatest confidence; they never would believe a person who sets about a piece of a measure.

1612. Could the different companies interested in Ireland in railways, could they not contrive to unite in carrying on the railways in common with Government?—There might be different projects for the West of Ireland, and companies formed, and it would be competent for all those persons to promote the scheme they have for the general benefit.

1613. Have you contemplated the possibility of pneumatic railways succeeding?—I have not contemplated that succeeding.

1614. You have been lately in Ireland?—I have.

1615. In your opinion would not the assistance you refer to be given by Government, be money profitably laid out for the benefit of the public?—I have no doubt of it.

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1616. And would tend to the increase of the consumption of exciseable and duty-paid articles?—Undoubtedly.

1617. And would it not raise the price of labour in Ireland?—Certainly.

1618. Do you think it would have that effect in England?—I think it would have that effect.

1619. Is there any thing else which you would like to suggest to the Committee?—No, I am not aware of any thing else.

Charles Vignoles, Esq. called in; and Examined.

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1620. I BELIEVE you are a civil engineer?—I am.

1621. Were you concerned in the Dublin and Kingstown railway?—I am the engineer of the company.

1622. Are you aware, notwithstanding many obstacles, that has become a successful undertaking?—Yes.

1623. Have you been a good deal through Ireland?—I have; I am a native of that country.

1624. Can you state whether, according to your judgment, it is quite practicable to have a railway from Dublin to Valentia?—There are existing plans, levels and other documents which I have gone through, which added to an examination of several parts, enable me to state that it is a perfectly practicable line; much less difficult than that between London and Liverpool.

1625. And comparatively less expensive?—I consider three millions would cover the cost.

1626. In your judgment, would great national advantage result from such a railway?—I think so; I have no hesitation in expressing my opinion that it would. Two years ago I was first employed by gentlemen to examine a line out of Dublin, with a view of forming the first portion of a railway communication with the West and South of Ireland. Since then, Mr. Cubitt has put forth his project, which may be called imperial, and is one much more worthy of consideration than that to which my attention was directed; his scheme is the extension and perfection of the one for which I was originally employed.

1627. You mean that from Dublin to Valentia?—I do.

1628. Have you made a statement concerning the railway and its advantages?—I have.

1629. Will you hand that in?—[*The annexed Document* (A.) *was then handed in.*]

(A.)

THOUGHTS on the *Dublin* and *Valentia* Railroad.

THE advantages afforded by railways have now become sufficiently appreciated. They comprise the civilization and employment of the labouring part of the community, the distribution throughout the whole country of useful expenditure, which the localization of manufacture and capital has before secured in monopoly to particular districts, the equalization of the value of property, and more especially, rapidity and economy of communication, thereby affording the means of obtaining an intimate knowledge of all the wants and interests of the remoter provinces.

Consequent on the appreciation of these objects has been the progress of the railway system throughout Europe and the United States.

In Great Britain, the successful experiment between Liverpool and Manchester gave birth to numerous projects, of which some have been already accomplished, and there are now in profitable operation nearly 250 miles* of railway in various parts of that country.

Within three years the railway from London to Liverpool will be completed, besides various other great connecting lines, altogether 400 miles† of railway are at this time in progress

	Miles.		Miles.
* Stockton and Darlington, and Branches	40	Wigan and Newton and Warrington	14
Liverpool and Manchester	32	Clarence Railway	30
Railways near Glasgow, and Branches	25	Edinburgh and Dalkeith	10
Leeds and Selby	25	Canterbury and Whitstable	8
Dundee and Newtyle, N.B.	12	Seaham Railway	7
Hotton Railway, &c.	10	Bolton Leigh and Kenyon	10
St. Helen's and Runcorn, and Branches	12	And several others.	
† London and Birmingham	112	Preston and Branches	18
Grand Junction	80	Bolton, Bury and Manchester, and several others	15
London and Southampton	80		
Newcastle and Carlisle	60		

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progress of construction in England alone; applications for 200 miles,* including the Bristol line, are before Parliament; and companies are now forming for upwards of 500† miles, among which is the connexion between Glasgow and Edinburgh, and between York and London; in all nearly 1,400 miles.

In Belgium, the first portion of the chain of railways between Antwerp and the Rhine has, within these few days, been opened to the public. Hamburgh, justly alarmed, is negociating with Hanover on one bank of the Elbe, and with Prussia on the other, to secure a railway through one of those kingdoms into Saxony, Bavaria and Bohemia, which will not merely advantage her present trade, but bids fair to divert to *Hamburgh* the commerce of *Trieste*, for the supply of Central Germany with colonial produce and manufactures.

France has tried the experiment successfully near Lyons, and the Government have publicly declared they will become partners in the lines now in progress from Paris to the coast. Even in Austria there are two very extensive lines of railroad at work.

It is, however, in the United States where the greatest impulse has been given to railways. Many hundred miles are already executed, and vastly more are in contemplation.

In the small state of South Carolina a railway of 150 miles in one continued line is in actual operation. The whole population of that state is scarcely 300,000 souls, wages are 5*s.* a day, and capital at seven per cent. interest; yet private enterprise chiefly has executed this great line, which is now by its success proving practically the truth of the principle long established in the minds of persons competent to judge, that railways create their own sources of revenue.

It seems incredible, that in Ireland, with a population of 8,000,000, multitudes of them in beggary, and too often in starvation, from want of work, with wages at from 4*d.* to 1*s.* a day, and money at four per cent., one short railroad alone has yet been executed.

However philanthropists and politicians may differ about many of the causes of the sufferings of the Irish poor, however various the proposed remedies, all unite in declaring that want of employment for the labouring classes is the leading evil, requiring the application of an immediate remedy, and all experience shows that an expenditure of money on Public Works has invariably introduced comfort and peace to the most destitute and most disturbed districts, and has increased the public revenues of the country in direct proportion to the amount of money expended. Public works, the effects of which have the great value of improving and increasing internal intercourse, trade and manufactures, must be the most desirable of any, and more so when their ultimate tendency will be to combine facilities for foreign communication, and particularly those of a commercial nature.

Such public works are railways, the new means of communicating on land, by steam; a power which on water has already been so beneficial to Ireland.

Railways possess extraordinary claims on the favour of the Legislature; claims wholly unconnected with their efficacy as instruments of commerce and avenues to wealth and prosperity; claims more especially paramount as regards Ireland, since, in the construction of railways, whatever might be the cost, two-thirds of the money expended must be distributed in weekly payments among the labourers of that country, who need employment so much.

The great success of the Dublin and Kingstown railway, and its daily-increasing revenue, while many and prudent persons had anticipated utter failure, has laid the foundation for the promulgation of the present project. The experience which has been gained in the arduous task of conducting the Dublin and Kingstown railway through a series of unparalleled obstacles, difficulties, prejudices, and even obloquies, will be made available in applying the same searching spirit of inquiry into all the details of level, direction, expense and revenue, in respect of the greater undertaking now proposed.

The true principle to be proceeded upon has been already laid down by Mr. Cubitt; viz. to ascertain the best direction for a main-trunk line for a railway from Kingstown Harbour through the South and South-west of Ireland, passing about midway between Cork and Limerick, and affording the greatest accommodation to all the towns within 30 or 40 miles on each side, but without reference to particular places or individual interests.

It will be presently explained, that the route is naturally divisible into four principal and distinct sections, one or more of which may be in the first instance carried into effect, giving time for maturely considering the eligibility, advantage and prudence of proceeding hereafter to the Harbour of Valentia, creating there a great out port and packet station, to and from whence the future current of commerce and travelling will be directed.

Such a main-trunk line of railway as the one proposed, would be the means of saving the unnecessary outlay of capital in making a number of independent lines to each town. The leading feature of the railway system is to connect the extremes of kingdoms with their capitals, and to leave the large towns in the various districts pervaded by the great track to construct their respective branches to the nearest or most eligible points. The local dealers and proprietors of lands, houses and establishments will rapidly fill their respective subscription lists, to accomplish the few miles of railway from each town. Numerous communities will feel the necessity of forming, and will readily (and generally economically) make connecting branches to the main trunk, for they will soon discover,

to

* London and Bristol, 125 Miles, and four or five others.

† London and York - Miles. 280; Cambridge and Norwich - Miles. 280; London, Ipswich and Yarmouth - Miles. 120; Edinburgh and Glasgow - Miles. 50; London and Brighton - Miles. 50

And several others.

to use the words of a popular paper, "that those places that have no railways, or connexion with railways, will be no places, and their inhabitants nobodies." It is equally inconsistent to expect that the grand arterial railway should meander like the old roads and canals from town to town, or that every city should have its distinct railway to the capital.

All such constructions would prove nearly equally failures; whereas the institution of a principal and leading line will derive its prosperity and success by numerous ramifications from its trunk; and the establishment of other lines as offsets will take place from the lateral branches, which will themselves extend, while towns and villages sufficiently near will make good roads; and thus a succession of employment to the working classes be created. And though the branch railways might repay the expenditure in but little, or even not at all, still the inhabitants and proprietors of each town and its surrounding neighbourhood (and these will be the natural subscribers to each branch line) will be benefited individually and collectively, and if they do not greatly increase, will at least retain their trade or connexions, which would otherwise pass to towns and districts more sensible to the advantages of the railway system, or more prudent and more active in forming that connexion with a communication which is destined by its peculiar facility, economy and despatch to create great changes in the channels of trade, and of social and probably of political intercourse.

The existence of a great mass of valuable and accurate maps and levels, formerly executed at the public expense by the Bog Commissioners, the Post Office, the Commissioners of Inland Navigation, and by various public and incorporated bodies, and which comprise the whole distance from Dublin to Valentia, and extend over a great breadth, and the general knowledge which has been obtained, or is possessed of the topographical features of the country, enable an assurance to be made that no material barrier exists to the execution of the whole line, and that, for the principal part of the way, the greatest facilities exist. The point of division between the first and second sections of the work will be in the vicinity of Maryborough. The separation of the second and third divisions will be at that point where the railway now proposed would intersect the intended Limerick and Waterford Railway not far from Cahir. The dividing point between the third and fourth sections will be in the great coal-field which lies between the Boghra Mountains and the banks of the Lower Shannon; the precise place cannot be determined until all the passes have been carefully examined; but the present impression is, that such point will be in the vicinity of the Drumagh Collieries; the fourth section will pass near Killarney, to terminate at Valentia.

A glance at the map of Ireland will show, that the first section would be well adapted as a common route for all places from Galway round the west and south coast to Waterford; and thus the first 60 miles of the main trunk would be equally available for the districts comprised within this great sweep; and even if not extended further, the railway must be of the very greatest public utility.

But if, on subsequent inquiry, the prospects should be encouraging, the second section would carry the railway a stage further, and to a distance of 100 miles from Dublin, and make a connexion with the line of the intended Limerick and Waterford Railway, calling into activity the dormant powers long since bestowed by Act of Parliament on that incorporated company.

As Bristol will soon have its railway from London, either by Basingstoke or Reading, an important and immediate route, particularly for our internal produce and exportation, would then be opened to the respective advantage of the central and southern counties of Ireland and the West of England.

The third section would carry the railway into the great western coal-field, and approach within 20 or 30 miles of the highly important flourishing commercial port and city of Cork; it would connect the limestone and coal districts of the counties of Tipperary and Cork, and present great advantages, and offer means of accommodation to towns and large and fertile tracts at present almost entirely cut off from all connexion with the out-ports and the capital. The railway would, in this case, extend about 150 miles from Dublin.

But on entering the fourth section, and carrying the line to an ultimate *terminus* at Valentia Harbour, on the very verge of the Atlantic Ocean, the undertaking ceases to be considered in a local point of view, and becomes a great national work, in which Great Britain, Europe and the Americas would be as much interested as Ireland. We should, in fact, have arrived at a port which nautical men, statesmen and many acute inquirers have at various times, and under different circumstances, and without communication or connexion with, and even without knowledge of each other, recommended as the most eligible Harbour for the foreign arrivals and departures of the United Kingdom.

The attention of the Government has often been called to the eligible situation of Valentia Harbour, and the highest naval authorities have given evidence to Parliament of the peculiar combination of advantages which it possesses as a packet station. Captain Beaufort, R.N. and Hydrographer to the Admiralty, states, that "the first object of all vessels bound to either America, to the South of Europe or India, is to get far enough out of the channel to be able to adopt either tack without fear of the land; the next object is to fetch to the westward of Cape Finisterre." By sailing from the harbour of Valentia, the most westwardly port in Europe, both these objects are secured. Captain Beaufort further states, that "whenever possible, a packet harbour should have two ways of exit,

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like Spithead, for instance." Valentia Harbour possesses this advantage, having two easily practicable inlets to an excellent receptacle for shipping, capacious, safe and land-locked.

The intervening transit between Valentia (the nearest point of land in Europe to America) and the harbour of New York, is unobstructed by islands, rocks or shoals, and the distance being less than 2,700 miles, may be traversed by steam packets, such as those now running between Kingstown Harbour and Liverpool, in 10 or 12 days. London will thus be brought within a fortnight's distance of the Canadas and the United States. Liverpool may be reached on the completion of the English Railway in ten hours from London; the average passage (looking forward to no increased speed in steam boats) from Liverpool to Kingstown is 14 hours; and by this proposed railway of 200 miles from Kingstown Harbour to Valentia Harbour, the run across Ireland would be made in 10 hours. In all 34, or at most 36 hours from London to the shores of the Atlantic, and on great emergencies and with a favourable water passage, it may be reduced to 26 hours. The fact is astounding, almost incredible, but it is undeniable.

If, as stated by Captain Beaufort, "the establishment of a post-office packet station at Valentia would insure a saving of four or five days in the voyages of sailing vessels," can it be doubted that with such a ready connexion with London, Valentia Harbour will not be the great out-port of the United Kingdom and (passing rapidly over the chain of intermediate reasoning) of France and all northern Europe. In short, Ireland would become the great highway of nations from the Old to the New World,—the thoroughfare between the two hemispheres,—and (to quote from an energetic letter which appeared in a New York newspaper of last December, from which some previous ideas are drawn, and in which the establishment of a harbour at Valentia is discussed) "The occupation of the public mind and the labourers of Ireland in such an enterprise, and the constantly increasing fruits of its progress, would do more to pacify the fearful dissensions of the people and ameliorate their lamentable condition, than any legislation of even the best disposed Parliament."

When the English tourists who now perambulate the mountains of Wales and pass a few happy days or weeks of each summer in contemplation of the beauties of the Lakes of Cumberland and Scotland, can transport themselves in 36 hours at the expense of 5*l.* to the county of Kerry, and tread the borders of the Lakes of Killarney, can it be doubted but that a vast influx of visitors of all classes of society would ensue, enriching with their superfluous wealth, and civilizing by their presence, the inhabitants of the wide ranges of moor and mountain district, which lately and still to a great degree are the remote abodes of poverty, sickness and crime.

The Kingstown and Valentia railroad would further enable a very considerable saving to be made by a reduction of the military force of Ireland, and by the diminution of the expense of moving troops, particularly when intended to be embarked for foreign stations, after having had their usual period of service in Ireland; the quickness, facility and economy of transport will carry infantry, cavalry or even artillery, without fatigue to any point or place required for one central depôt; and the embarkation of the forces at Valentia, independent of the reduction of expenditure, would generally gain a week in an Atlantic voyage; all these are advantages which military men can well appreciate.

There is one more and one most important national point of view in which the railway from Kingstown Harbour to Valentia is to be considered, namely, its intimate connexion with, and the means it presents of carrying into effect, the reclaiming of the bogs, which some years since held so important a station in the inquiries concerning the best mode of improving the condition of Ireland, and moreover of forwarding in the most effectual and the most economical manner, the enlightened and benevolent views and recommendations of the Committee on the Irish Poor.

Experience on the English Moss lately opened by the construction of the Liverpool and Manchester Railway, has shown that by an improved and economical mode of drainage, the bogs of Ireland (which in general resemble and are for the most part sounder than the celebrated Chat Moss) may be drained and prepared for the husbandman at an expense of 5*l.* or 6*l.* per acre, producing immediate and excellent crops.

It is, therefore, a gratifying feature in the project, that the line of railway will pass through or in the immediate vicinity of the great bogs in Kildare, Queen's County, Tipperary, Cork and Kerry, which 25 years since were so minutely surveyed, levelled, examined and reported upon by the aggregate engineering talent of Ireland, whose accurate documents remain in aid of the execution of the intended purposes, since almost forgotten, but now capable of being beneficially and instantly revived. What a field would be opened for the exercise of individual benevolence and enterprise, and national encouragement! A Government grant of inconsiderable amount would place in every barony of the bog districts competent overseers, accustomed to the mode of improving the English mosses, properly to direct the labour of the agriculturists, and would remunerate one or two principal managers to lay out and superintend the general system. A premium to the farmer, small rewards to the intelligent labourers, the encouragement of all by loans of various but minor amounts, and the introduction of a few model agricultural schools, would produce effects vastly beneficial, and at small expense.

The railway would cheaply and readily transport the produce of those improved bogs to markets, and to the exporting vessels, and being intimately connected with the ports of Waterford and Kingstown, save all false expense of intermediate cartage, agencies, &c., only one moving of the load occurring between the farm and the ship.

Should it be considered by the Government expedient, as can scarcely be doubted, that

such

such a public work should be commenced forthwith, and should any fiscal difficulties arise, the creation of Government debentures on which the Government would be responsible for the payment of dividends, forms a ready available and marketable security; and the increased consumption of exciseable articles, in the distant parts of the country, will doubtless, as proved from all former works, add a larger sum to the public purse than would be necessary, not to advance, but simply to guarantee.

With such prospects and such probabilities, can there exist a doubt of obtaining ample and immediate encouragement from the Government? or can it be doubted that when the gentlemen now forming a Committee to promote this railway shall have applied themselves to the prosecution of the requisite inquiries on which to ground a future detailed report, but that they will be able to bring forward an irresistible case for the largest amount of co-operation of legislative aid with private capital?

Charles Vignoles,
4, Trafalgar-square, London, May 1835. Civil Engineer.

1630. Is it not a great object to complete the Kingstown Harbour to the Government wharf now in progress of being finished on the Kingstown Harbour?—I conceive it of great consequence.

1631. And of great public interest?—Yes.

1632. What is the reason of that not being carried into effect?—In consequence of the objections of the Admiralty.

1633. Is it your opinion that those objections are well founded?—I have considered the subject, and I think there is no reason to apprehend any real damage will accrue at all.

1634. What is the difference of expense between the line projected by the railway company, and that which the Admiralty required them to make?—Several thousand pounds.

1635. What is the supposed advantage which the Admiralty will derive from the plan they propose?—They conceive the inner harbour will not be so smooth if the railway is carried over as intended, and they propose that it should be run across on arches, and in addition that a compensation harbour should be made of the same size as the small segment cut off from the old harbour: the execution of this would involve a further sum of several thousands; making the extra cost to the railway company for crossing the bottom of the small shallow bay, which is dry at half-tide, and only fit for very small vessels at high water, in the very highest degree expensive.

1636. Can you give any idea of the system pursued by the government of the United States of America, in carrying on their public works?—I can.

1637. State it?—The general practice is, that for all objects of public utility which may extend through more than one state (that part of America being divided into a great number) the officers of the government corps of engineers make the surveys at the expense of the government, with the view of laying out the projects to advantage and in a proper manner; and each state encourages those undertakings which pass through them, by taking shares or issuing debentures, or otherwise participating in the profit and loss of the undertaking, as private capitalists.

1638. And have not very considerable works been executed in that manner, and attended with considerable profit?—Yes; one work is, the celebrated Erie Canal, which was executed altogether at the expense of the State of New York. I believe this to be the only instance in which the entire work was executed exclusively by the state government. The returns from this canal have been exceedingly profitable.

1639. Then the government has derived that profit?—The government has derived the profit, it being entirely a government undertaking.

1640. The profit was from the tolls?—Yes; at this present time engineers are employed by the government of the State of New York in making surveys for a proposed line of railway, from New York westward, to the same extent as the canal.

1641. At the expense of the state?—The survey is making at the expense of the state.

1642. Who is to be at the expense?—The state government.

1643. Is the whole to be carried into effect by the contributions of government, or individuals?—By government participating largely in the concern.

1644. Is that usual in the other states?—Yes; in South Carolina a very extensive line of railway has been made, with four-fifths private capital and one-fifth government subscription.

1645. Is not the objection existing in America to the general government taking the management of public works, one more of a political than a financial nature?—Entirely political; the government do not consider that by the constitution of

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the United States they have a right to appropriate the public revenue to any but purposes essentially national; and in these, improvements of the interior of the respective states are not included; it is limited in this way, that any thing on the exterior coasts and boundaries of the country connected with the general defence or protection, is of that species of public works which the government ought to construct; but any thing of a different nature it is thought ought not to be made by government, but properly to fall within the duties of the respective states; but the general government have allowed the surveys to be made by the national corps of engineers.

1646. Do you think the principle of government giving large sums, without having any control, is a judicious principle in carrying into effect public works?—I think the government should be made participators in all great public works; the Committee are probably aware that France and some other continental states are about to do this; France has introduced a law, authorising the government to become proprietors and shareholders in the new railways projected in France, the surveys, levels and estimates whereof have already been made by the government engineers, and the expenses incidental to which were specially provided for by a vote from the French legislature.

1647. The public works in France are conducted, principally, by a general board at present?—Exclusively so, and their present system is not a good one; at all times the government insists on having the entire control and management of public works, which has hitherto greatly impeded the undertakings of private individuals.

1648. The public not contributing jointly with government, has produced considerable injury?—It has had the effect of arresting the progress of internal improvements in France.

1649. Do you not think the best arrangement is to have the contributions of government on the one side, and the public on the other?—Yes; and government, by affording pecuniary aid to associations of private capitals, acquire a legitimate right to control the management of public works.

1650. You would allow individuals and companies an adequate control over their contributions?—Certainly; that principle is already established in Ireland; private companies have their works under their own management, and the Board of Public Works send their engineers to report to them if the works are going on properly.

1651. Are you acquainted with the state of harbours on the coast between Valentia and Galway, and if so, inform the Committee whether there are any safety harbours in that direction, and whether you consider such harbours important, in reference to the proposed railroad between Dublin and Valentia?—I am not acquainted with any harbours on the western coast of Ireland, from personal inspection; I can only answer from careful inspection of the coast maps. There cannot be any doubt that Valentia Harbour is the most superior of any on the western coast of Ireland for accommodation, shelter and facility of access and departure. If the wind is blowing direct west at one or other of the entrances, a vessel will be able to fetch out either on the north or south tack.

1652. Do you think it is of importance to have safety harbours between Galway and Valentia with reference to the work proposed, the railway between Dublin and Valentia?—I should say there is not any occasion for safety harbours, as connected with the railroad, because the mouth of the Shannon and Bantry Bay afford places of refuge for vessels to the north and south of Valentia.

1653. Are you aware that there is a large tract of land between Hoop Head, the coast of Clare-side, and Galway, without any asylum for vessels of any kind?—I am aware of that.

1654. Do you not think that it would be a most desirable object to have some asylum harbours there?—No doubt about it.

1655. Ought not those harbours to be made at the public expense?—No doubt; all safety harbours should be made at the public expense. I beg to mention (though not connected with this part of the subject) that upon the Dublin and Kingstown railway the levels and ranges of the railway bars, in the adjustment of which it was generally considered Englishmen must be employed, are already kept in order by the native labourers. The Englishmen at first employed have all returned home, as, in the space of six months, the Irishmen learned the art of keeping the railway in proper level.

1656. Do you find them quick in learning the duties imposed upon them?—Very

Very much so indeed; you have only to mix a certain proportion of English to teach and show them. There was not more than one or two Englishmen in a hundred labourers employed on the Dublin and Kingstown railway.

1657. Were they generally workmen in the neighbourhood of Dublin, or taken indiscriminately from all parts of the country?—They came from all parts of the country. Very many of them were stone-cutters and labouring people about Kingstown, but a great number came from distant parts; some of the same men are now working on the Ulster Canal.

1658. Did you find them well-conducted?—Exceedingly well-behaved.

1659. Was there any degree of intemperance or dissipation after their money was received?—No, we always paid them in money; and it is a well-known fact, that the local consumption and sale of whiskey was much less while the work was going on than previously.

1660. At the period the work was concluded, was there any degree of drunkenness or dissipation among the people?—No, they went off gradually.

1661. You did not discover any injury arising to the habits of the people when they were taken from the railroad?—No, quite the contrary.

1662. Do you consider the proportions mentioned by Mr. Pim and Mr. Cubitt which private capitalists and Government ought to contribute are the proper proportions?—I do; I have thought much upon the subject, and I think that the proportions stated by those Gentlemen would form an equitable arrangement, limiting the profits to 10*l.* per cent., and appropriating the surplus as a sinking fund for the future repayment of the grants.

1663. Do you think it would be more advisable to leave the Government completely at discretion, according to the importance and practicability of the work, as to paying the one-third of the expense of the survey?—I think the proper way is for private individuals to make the survey themselves in the first instance, and that that should be submitted to Government, and re-examined by the Government engineers at the expense of Government; that is carrying only into effect the principle that would exist in the management of the works when in execution.

1664. Private individuals pay for the Board of Works' survey at present?—They do.

1665. Do you think that just and expedient?—No; on the contrary, where the assistance of Government is so much wanted as in Ireland, I think it is highly inexpedient that individuals should be saddled with the whole of the expense.

1666. Would you charge them exclusively with the expense of the first survey, and the second survey to be at the expense of the Government?—I would.

1667. Do you not think, where Government advances the whole of the money required for the work, that the execution should be entirely entrusted to the care of their officers?—No doubt.

1668. Would you extend that principle to any case in which a grant of one-half is made, as is done in the case of grants to Grand Juries?—I think the better way would be that the whole work should be under the supervision of the engineer of the Company, and the controlling power should be in the hands of the Government; that the expenditure should be made by the directors and officers of the Company, and checked by the officers of Government.

1669. Do you mean that when Government gives one-half?—Yes, the Government engineer can always have the opportunity of controlling what is going on without interfering with the details of the work.

1670. Are you at present aware that the Board making a grant of one-half takes the entire control?—Yes, that is quite right; where they give one-half and the other half is levied on the county, in that case the Government ought to become the sole controllers of the work; but where there has been money lent by Government, or money raised by assessment, and the other half is raised by subscriptions from individuals, I would draw the distinction. There are three cases that may arise; first, the grant to Grand Juries, in which money is laid out under the superintendence of the county engineer, that is, expended by the county engineer, controlled by the engineer of the Board of Public Works. The next case, where Government lends the whole of the money, they ought to take a still greater control than if they had lent only a portion of it, and they would, and, I believe, do, not allow any portion of the work to be done without the continual inspection of their own officers. The

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third case is where the Government lends a portion, and the capitalists find the rest; then the private capitalists should have the affairs managed by their own officers, but to be controlled by the Board of Works, who would appoint engineers in different parts of the country, as the works require it.

1671. Do you consider the line of railway between Kingstown and Valentia to be the best line of railway for the purposes which you have already stated?—The general line of direction is.

1672. Will you mark upon a map the main-trunk line, and the off branches, or the different lines which would join the main line of the railway?—I will furnish such a map by the next meeting of the Committee.

Mercurii, 27° die Maii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *William Stanley*, called in; and Examined.

Mr. *W. Stanley.*

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1673. OF what profession are you, Mr. Stanley?—I am employed as an officer of a Government department in Dublin.

1674. Have you turned your attention to the state and condition of Ireland?—Yes, for a considerable time.

1675. Is she in an improved condition, or has she improved?—There is a partial improvement in some of the western districts, but it is limited to a few localities, and is a fair indication of what the whole country may be made. I cannot, however, offer it as a proof of advancement in the condition of the country at large. I am convinced that the condition of the larger part of Ireland is deteriorated. There have elapsed but a few years since that great change took place in the British manufacturing system, which stopped in Ireland one of her principal sources of employment, the hand-spinning of linen yarn in the midland, western and northern districts.

1676. Is that trade lost to Ireland?—The hand-spinning is entirely excluded; but the spinning of linen yarn is not lost to Ireland, because machinery is now erected for the purpose, like that which existed previously in England, and first diminished the Irish hand-spinning. Besides, we cannot consider a country improving which is now almost wholly agricultural, and which is affected by the same circumstances that depress agriculture in England. If the agricultural occupiers in England are unable to pay their rents, the Irish occupiers must be more distressed, their prices being lower and their rents being higher than they are in this country.

1677. When you say that the rents are more moderate in England, do you speak with reference to the actual amount which is derived by the tenant for his share of the produce?—I think the Irish occupying tenant derives less from the produce of the soil than the English occupying tenant.

1678. Are you aware of the difference of the acre?—Yes; I am aware that 30*s.* for an English acre would be about 2*l.* 8*s.* for an Irish acre. When I say that the Irish tenant derives less from the produce of the soil than the English tenant, I should add, that his rent may not be too high for such land as he occupies, but too high for a person in the condition of an Irish occupier. I know many occupiers of land in Ireland who in other circumstances would not consider their rents too high, even with present prices. If a farmer be liable to rent for 50 acres of land, and be capable of cultivating only 30, which is a very general condition in Ireland, it is obvious that he is paying, in reference to his productive land, a much higher rent than the farmer who makes every acre productive. The English farmer appears to be a more comfortable man and in better circumstances than the Irish farmer. I do not say that he pays less in proportion to the real value of the land than the Irish farmer, but that the Irish occupier, with reference to his own circumstances, is under too much rent.

1679. Supposing the skill and the capital of the Irish farmer to be equal to the English farmer's, you would not consider the rent paid by him at present as *comparatively*

ratively high, with reference to the average rent of land in Ireland?—I would not, with reference to ordinary farms.

1680. Have you formed any estimate of what the actual average rent of an acre of land in England is in the cultivated portion of the kingdom?—I have not; I only judge of the rent in England by the apparent condition of the farmers, notwithstanding their wages and taxes. I have not seen any estimate to enable me to state the average you speak of.

1681. Are you not aware that Mr. Griffiths, who has entered into the calculation very minutely, has given an average rent payable in Ireland of not more than 12*s.* or 13*s.* by the English acre?—I have seen a number of averages of that kind, but I have seen nothing on data to satisfy me that they are quite accurate. I know the average value of land for the Grand Jury rates in Ireland is about 15*s.* for counties; but it is higher for land in "counties of towns." In the accounts published by the Board of Trade, there is one compiled from Returns obtained from the several Grand Juries in Ireland, in which the average value for assessment is 15*s.* an acre. Sometimes a county gives us 18*s.* and sometimes 12*s.*, but I think the average is 15*s.*; and when the Grand Juries applot upon such a valuation, we must suppose that the actual average rent is a great deal higher.

1682. Are you aware of any measures having been taken to correct the evils to which you have alluded as proceeding from the change of system with respect to manufactures?—I am not aware that there has; indeed I know there has not.

1683. Can you suggest to the Committee any measures that might be usefully adopted for that purpose?—Yes; I think in the very tracts in which a great deal of distress exists, measures might be adopted to employ (not the females who once lived by spinning,) but their husbands and sons, and thereby better the condition of the families who have been impoverished in the way I have referred to. A large portion of the linen yarn for exportation, and for the great linen trade of Drogheda, was obtained from the counties near the Shannon; from Roscommon, Westmeath, Longford and Cavan; and near these very districts lie extensive sources of employment not yet developed.

1684. What measures would you take for the purpose of employing the poor?—Referring to the whole of Ireland, the most direct measure to employ the poor would be one that would check the pasture system, and compel the occupiers of large tracts of land to employ labourers in tillage, by breaking up a certain portion of the land. I think that could be done by imposing a labour-rate upon all lands, and exempting from it all persons who would give employment to a certain extent; but I would not directly enact that every occupier of a certain quantity of land should employ a given number of persons. I would leave it optional to give employment, or pay a certain moderate rate for enabling public Commissioners to provide employment for the poor. At the same time I would not put that rate upon lands, where it would be impossible for the occupier to give employment; for instance, there are lands along rivers, that are liable to be flooded, which cannot be well broken up; but all lands not liable to those casualties I would make liable.

1685. Would there not be insuperable difficulties in carrying such a law into effect?—I think not; I would carry it into effect, under the control and management of the Board of Works in Dublin, assisted by local Boards elected from among the rate-payers; for which purpose all the rate-payers should be formed into district constituencies.

1686. Would you leave to that Board the discretion of determining what number of labourers ought to be employed on the different descriptions of lands?—There are some lands, I would say, ought not to pay at all, and these should be specifically exempt, but I would leave it to the discretion of the Boards to apply the exemption, by deciding what lands should be deemed to be within the scope of the exemption. With reference to the quality of soils, there could be no difficulty in fixing for all occupiers a liability of providing employment for the same number of labourers on equal quantities of land, if we limit the number with reference to the labour requisite for good land, because inferior soils require more labour to keep them productive than good land requires, and therefore the poor soils would not be surcharged with labour.

1687. Does the state of society in Ireland afford materials for such a Board or such a constituency?—I think it does; it affords materials for managing all Grand Jury concerns; therefore I think it must afford materials for managing this. I think a very

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a very inferior class of men to the gentlemen on Grand Juries would be sufficient for this purpose.

1688. Would not the interests of the constituency and this Board clash with the interests of the landlord in that respect?—Landlords would be rate-payers when resident, being occupiers of land, and I do not think the rate would clash with their interests; for whatever improves the country must serve the landlords. The local Commissioners referred to, should be elected for baronies annually or triennially; and if none but the principal rate-payers were qualified, the Boards would consist of the respectable gentry, farmers and traders, and be the most competent bodies for the management of all public affairs connected with local taxation in both rural and town districts. In 1830 Lord Cloncurry proposed to transfer to such bodies the collection and management of a general tax on lands, houses and rents, for all local purposes of a public nature, in lieu of Grand Jury cess, turnpike tolls and town rates; and in 1834 his Lordship published the outline of a law for effecting that object, in which it was proposed that the control and interference of Irish Grand Juries and corporations, in the levying and application of local taxes and tolls, should be superseded by local elective bodies, acting under the control of the Board of Works in Dublin. It was also proposed that the labour-rate I have suggested should be managed by them. I may add that my suggestion is supported by a proposition which Primate Boulter made in 1727, when one of the Lords Justices of Ireland, that every occupier of one hundred acres of land should keep five in tillage. And Spenser in his time proposed that every person who kept twenty kine should keep a plough going. My proposition, if adopted, would introduce a system of husbandry which, of itself, would in time compel the employment of even a greater number of labourers than ten for every hundred acres; I allude to green-crop husbandry. That might also be promoted by giving premiums or bounties to cultivators of green crops for feeding cattle.

1689. In the absence of such a law, would not great benefit be derived to the poor of the country by the judicious expenditure of money upon public works, such as making roads and bridges, and improving the internal navigation of the country?—I think that next to such an assessment as I speak of, which would create employment generally, I would say that the outlay of money on public works would be the most politic expedient.

1690. Is not such expenditure required more in some parts of the country than others?—I think it is more required in the pasture districts than the tillage districts; and I think those districts possess the means of supplying a sufficient number of labourers for the works without interfering with the general occupations of farms. If you commence public works in a great tillage district, it might interfere with the farmers in that district by raising the rate of wages against them, in spring and autumn, which under present circumstances would throw them back. I have compiled a statement from various Returns published by the Board of Trade, which shows the number of Irish agricultural labourers and labouring occupiers in 1831 in each county, as compared with the number of acres. From this it appears that the peasantry and lands in the pasture districts are in nearly the same proportions as in the tillage districts; therefore, in the pasture districts there must be a great number unemployed at those periods of the year in which they are not working in England.

1691. Will you hand in that document?—

[*The following Document was handed in.*]

LAND in each MUNICIPAL DIVISION of *Ireland*; Number of Agricultural Labourers in 1831; Occupiers in 1831, labouring for themselves and not employing Labourers; Total Agricultural Labourers and Labouring Occupiers in 1831; Number of Males, aged Twenty Years or upwards, in 1831; and Rate of Increase of Population from 1821 to 1831, as in the Official Tables of the Board of Trade, Part 2, page 119, and Part 3, pages 443 and 447.

	Cultivated Land.	Mountain and Bog.	Agricultural Labourers in 1831.	Occupiers of Land in 1831, labouring for themselves without employing Labourers.	TOTAL Agricultural Labourers, and Labouring Occupiers, in 1831.	MALES aged 20 Years or upwards in 1831.	Rate of Increase per Cent. of the whole Population from 1821 to 1831.
	Statute Acres.	*Statute Acres.*					
ANTRIM	466,564	225,970	13,152	18,098	31,250	73,586	17
Carrickfergus	16,542	- -	346	331	677	1,910	8
Armagh	267,317	42,472	14,730	15,728	30,458	52,392	11
Carlow	196,833	23,030	6,613	5,694	12,307	19,845	3
Cavan	421,462	30,000	13,913	21,486	35,399	53,580	16
Clare	524,113	259,584	22,208	24,394	46,602	63,077	24
Cork	1,024,340	700,760	75,251	35,613	110,864	171,873	10
—— City	44,463	- -	2,436	668	3,104	24,733	6
Donegal	520,736	644,371	13,330	34,836	48,166	68,851	20
Downe	502,677	108,569	19,048	20,483	39,531	82,999	8
Dublin	229,292	10,812	12,967	1,936	14,903	43,120	18
—— City	8,527	- -	508	26	534	50,234	9
Fermanagh	320,599	101,952	7,881	16,984	24,865	35,568	14
Galway	945,212	464,957	21,043	49,883	70,926	94,096	23
—— Town	10,501	12,000	1,709	1,622	3,331	7,983	19
Kerry	581,189	552,862	26,116	15,719	41,835	63,545	18
Kildare	325,988	66,447	14,107	3,208	17,315	27,625	9
Kilkenny	394,830	96,569	16,893	10,372	27,265	41,653	6
—— City	22,287	- -	1,394	288	1,682	5,516	2
King's County	394,569	133,349	11,727	11,535	23,262	34,663	9
Leitrim	266,640	128,167	6,203	18,639	24,842	32,017	12
Limerick	548,640	91,981	30,765	12,843	43,608	61,658	12
—— City	34,162	- -	2,561	1,289	3,850	15,663	12
Londonderry	372,667	136,038	14,717	15,530	30,247	52,367	14
Longford	192,506	55,247	11,309	8,228	19,537	25,459	4
Louth	185,568	14,916	8,605	6,063	14,668	26,171	7
Drogheda	5,777	- -	431	84	515	4,222	decrease of 4 per cent.
Mayo	871,984	425,124	17,238	50,219	67,457	86,782	24
Meath	561,527	5,600	23,045	6,894	29,939	44,204	10
Monaghan	309,968	9,236	10,631	17,232	27,863	45,669	11
Queen's County	335,838	60,972	12,412	9,594	22,006	35,717	8
Roscommon	453,555	131,063	17,925	25,848	43,773	57,406	19
Sligo	257,217	168,711	7,764	20,889	28,653	40,849	17
Tipperary	819,698	182,147	36,440	23,181	59,621	98,243	16
Tyrone	550,820	171,314	13,047	28,379	41,426	73,557	16
Waterford	343,564	118,034	16,264	6,498	22,762	36,988	15
—— City	9,683	- -	306	63	369	6,420	nil.
Westmeath	313,935	55,982	14,766	7,142	21,908	32,815	6
Wexford	545,979	18,500	15,321	10,683	26,004	45,414	7
Wicklow	400,704	94,000	11,319	6,072	17,391	29,295	9
TOTALS	14,603,473	5,340,736	567,441	564,274	1,131,715	1,867,765	—

Note 1.—Number of Acres of *reclaimed* Land for *each* Labourer and Labouring Occupier not an employer, 13.
Number of Acres of all kind of Land for *each male* in Ireland, in 1831, aged 20 years or upwards, 10¼.

Note 2.—If each of the 1,131,715 Labourers and Labouring Occupiers were, by an improvement of condition, able to consume 1 lb. of flour in the day, the *Irish* consumption of wheat in the year would be increased by upwards of half a million of quarters, as much as is now exported; and if they consumed 1 lb. of beef or mutton in the day, their consumption in the year (deducting 65 days of abstinence) would amount to more than three million cwt., which, if in beef, would require 336,819 cattle, weighing nine cwt. each.

The Irish Cattle exported to England in 1832 numbered - - 69,624 to Liverpool.
7,334 to Bristol.

TOTAL - - - 76,958

being little more than a fifth of the number which the peasantry would require if properly dieted.

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1692. Is the state of the peasantry in the pasture districts much worse than in the tillage districts of Ireland?—Much worse. I am acquainted with several of those districts. In the county of Louth, which is a tillage district, the peasantry appear superior in their condition to the peasantry in Mayo, Leitrim and Roscommon; so are the peasantry in Down, Wexford, and in all the tillage districts. In Kildare they are not in good condition; it is chiefly a pasture district where the lands are good, but tillage where the lands are bad.

1693. What becomes of the peasantry who have not sufficient employment in those pasture districts?—They seek for employment elsewhere; I have seen them in the North of Ireland, in the county of Meath, and in England, in large numbers.

1694. Do you speak of a recent period, when you speak of the county of Mayo; have you been there lately?—I was in Mayo in 1830.

1695. Have you any idea of the size of the farms in the county of Down?—I have not an idea of the size of the farms in the county of Down; I speak generally of the appearance of the people as I travelled through it.

1696. Are you not aware that the county is divided into small farms, and that the persons who own these farms are generally weavers?—I am aware that the linen manufacture was carried on partially in that way in the county of Down, and is still carried on in the vicinity of some of its towns; but the system alluded to was not so much carried on in Down, as in the counties of Armagh, Tyrone and Monaghan; that system is, in a great measure, broken up, and the weavers are in or near the towns; Down is more a bleaching district than a weaving district.

1697. Has not the migration of labourers to England very serious effects on the poor-rates in England, and the price of labour?—Yes; whatever has the effect of depreciating labour in England, and lowering wages, must have an injurious effect on the poor-rates.

1698. If the peasantry in Ireland had employment afforded them, this migration would be prevented?—Undoubtedly it would; almost all the labourers who migrate from Ireland are from the western districts, and not from the districts along the Channel, because in the latter districts labourers are employed throughout the whole year in tillage.

1699. Can you state what is the food of the peasantry of Ireland in those western districts?—Principally potatoes; persons there who own considerable tracts of land, and diet their labourers, give them nothing but potatoes; they give the potatoes three times a day. Peasants who provide their own diet, or hire potato ground for their own use, are frequently unable to have potatoes three times a day.

1700. Do they not have milk?—Yes, men dieted by farmers; but they do not get milk regularly at home, unless they are fixed farm labourers, and have an allowance of milk.

1701. What is the rate of wages per day of those peasantry?—The farmers in Mayo pay sometimes 8*d.*, and sometimes 6*d.*; but it is difficult to ascertain the rate of wages, because there may be something given besides, or there is a deduction made for cabin rent, which leaves the labourer a very scanty allowance for his maintenance.

1702. What do you say is the general average of the price of labour in Ireland?—Near the eastern towns 10*d.* is given; but throughout the country 8*d.*, I think, is the average.

1703. Are you aware that a celebrated Writer, travelling over Ireland, came to the conclusion that the general average was 4*d.*?—I am only speaking of the days on which they are employed; for these days, I know in some counties the labourers are paid 10*d.* a day, without victuals, and in others they are paid 8*d.*, and sometimes 6*d.*

1704. For how many days?—Some labourers are employed throughout the year at those rates; in some counties 10*d.*, and in others 8*d.* a day, would be necessary to secure good labourers for the whole year, so as to have their services at all periods. If that agreement were not made with them, they would have to get more in spring and autumn. I know there are many peasants in those districts who are, at various periods of the year, subsisting on the charity of the men employed, and whose children are obliged to go about picking up fire-wood through the country.

1705. Are you not aware that there are many districts in Ireland in which the labourers do not receive 6*d.* a day for many months throughout the year?—I am aware that even in the neighbourhood of Drogheda, surrounded by fine tillage lands, you

you will get good labourers frequently at 6*d.* a day, and they are glad to get it, but these are not fixed labourers.

1706. You are, then, prepared to say that there is a great want of employment for the poor in Ireland, and that they are not sufficiently remunerated for their labours?—I am quite prepared to say so.

1707. Why is it that the lands in Ireland are not more generally tilled, but that a preference is given to the pasture system?—It has been the habit of the country; that is one reason; and gentlemen in general prefer to have the lands in pasture than to have them under tillage. I do not suppose that pasture can be more profitable, for we learn, from the feeding system adopted on the Earl of Gosford's estate, that the pasture system is not so profitable as the tillage; that the culture of green crops, to feed cattle in yards, supports a greater number of cattle than the same number of acres under grass would support; that is demonstrated by actual experience.

1708. Is there not a large importation of manufactures from England into Ireland?—Yes.

1709. How is that paid for?—Out of the balance of trade; there is a balance of money always due from England to Ireland, and the money which the English importers of corn owe to Ireland, is paid partly to the persons who send over manufactures, and partly goes into the hands of stock-brokers and money-dealers, to supply the medium of remittance to land agents, and others, requiring to pay money in England.

1710. England is obliged to import corn largely every year for her support?—Yes, largely every year; she imports one portion of that from Ireland, and the other from foreign countries.

1711. How does she pay for that part which she imports from Ireland?—It is paid for with English money in the first instance, and that English money returns back again to England; firstly, for manufactures, and secondly, for landlords and creditors, and also on account of assurance and other companies having agents in Ireland; in fine, for all purposes, whenever Ireland owes money to England.

1712. Then for the wheat she imports into this country, she sends an equivalent in manufactures to Ireland?—Not nearly an equivalent; because there is always a difference, part of which goes to the absentee landlords.

1713. How is the corn paid for by England which she imports from foreign countries?—It is paid for chiefly in gold.

1714. Does she not export manufactures?—Yes; but not sufficient to provide for in bills or cash for a large supply of corn, in addition to other imports. I will refer to the best evidence upon that subject, the testimony of Mr. Rothschild. He stated in evidence before the Bank Charter Committee, in 1832, that "the exchanges will always be favourable to England in time of peace, when there *is no importation of corn*, and no loans for foreign sovereigns negociated. If you send goods, they go out regularly, and the money returns regularly. *If you want corn*, it is all imported at once, and the bills become payable all at once, *and the exchange is turned by the loss of gold sent out to meet those bills.*"

1715. Have you any other suggestion which you wish to offer to the Committee?—There is one suggestion, which is, that if money were required to carry on Public Works (in addition to Parliamentary grants,) to afford employment to the poor, it could be obtained by empowering the Board of Works to take subscriptions for loans. Let these be taken for the Board at the public banks, and let every person who lends money receive debentures from the Board, with an undertaking for the payment of principal and interest, without reference to casualties. If the interest, so secured, were to be four per cent. the Board would get a great deal of that Irish money which is now vested every year in English securities, and it would then become a fund of Irish capital used in aid of Irish industry. Since 1824, when power was given by law of transferring English stock to Ireland, there has been vested in the public funds, Irish capital amounting to 16 millions; and this includes, of course, a portion of the money of the Irish savings banks. If loans be sought with any liability of risk, you will not get them, but if the law will guarantee the payment of the interest, you will get abundance of money; and if it was laid out upon works, for which rates or tolls would be imposed, there would be no risk, the Boards of Works having power to secure the collection of the taxes.

1716. Is there any other document you wish to put in?—With reference to the question as to the exportation of corn from Ireland to England, I present an account of the quantity of corn imported into England from Ireland, and from foreign

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foreign countries, since 1814. It shows that in one year of the period, Ireland did not send in any wheat to England, which goes to prove that the quantity sent every other year is the surplus which the people were not able to buy. It also shows that Ireland, in supplying the English market with food, competes rather with foreigners than with the English farmers, the latter not having sufficient for the market.

[*The Witness handed in the annexed Document :*]

CORN and MEAL brought into GREAT BRITAIN *for Consumption*,—as in the Official Tables of the Board of Trade, Part 3, page 396; showing the Import Duty, since 1822.

	FOREIGN AND COLONIAL		IRISH		Wheat and Flour sent to Ireland from Great Britain.
	Wheat and Flour.	Oats, &c.	Wheat and Flour.	Oats, &c.	
	Qrs.	*Qrs.*	*Qrs.*	*Qrs.*	*Qrs.*
1815 - -	nil.	523	189,544	631,648	329
1816 - -	225,263	101,471	121,631	752,234	11,978
1817 - -	1,020,949	756,757	* 59,025	640,784	81,409
1818 - -	1,593,518	1,945,050	108,230	1,099,621	7,592
1819 - -	122,133	1,131,274	154,031	813,830	2,936
1820 - -	34,274	726,851	404,747	1,013,373	264
1821 - -	2	2	569,700	1,253,116	3,696
1822 - -	nil.	nil.	463,004	600,085	4,340
1823 - -	12,137	nil.	400,068	1,128,085	15,781
1824 - -	15,777	659,852	356,408	1,277,616	3,737
1825 - -	525,231	304,994	396,018	1,807,944	2,681
1826 -	315,892	1,781,212	314,851	1,377,338	Account discontinued.
1827 -	572,733	2,413,822	405,255	1,424,488	
1828 - -	842,050	374,937	652,584	2,173,551	
1829 - -	1,364,220	579,829	519,493	1,786,313	
1830 - -	1,701,885	1,039,291	529,717	1,683,012	
1831 - -	1,491,631	1,077,352	557,520	1,862,123	
1832 - -	325,435	97,794	572,586	2,033,148	
1833 † -	82,346	26,268	844,201	1,892,080	

	IMPORT DUTIES ON FOREIGN WHEAT AND FLOUR Consumed in GREAT BRITAIN.		Average Price of WHEAT in England.
	Per Quarter.	*Amount.*	*Per Quarter.*
	s. d.	£.	*s. d.*
1823 - - -	16/11 $\frac{3}{4}$	10,310	51/9
1824 - - -	11/11 $\frac{1}{2}$	9,449	62/
1825 - - -	8/6 $\frac{3}{4}$	225,329	66/6
1826 - - -	11/3 $\frac{3}{4}$	178,995	56/11
1827 - - -	21/4 $\frac{1}{2}$	611,817	56/9
1828 - - -	1/9 $\frac{1}{2}$	75,222	60/5
1829 - - -	9/2 $\frac{3}{4}$	630,918	66/3
1830 - - -	6/4 $\frac{1}{2}$	543,869	64/3
1831 - - -	4/8	348,138	66/
1832 - - -	16/2	263,097	58/8
1833 - - -	5/6	22,748	52/11

* *Note.*—Wheat sold in England in 1817 at an average price of 94*s.* the imperial quarter, being 18*s.* over the price of 1816, and 9*s.* over the price of 1818.

There was, in 1817, an increase in the exportation of Linen, and a very largely increased exportation of Cotton Manufactures. The real Trade Balance of the year in favour of Ireland, was £.4,250,132.

† *Note.*—In 1834 the Foreign and Colonial Wheat and Flour *brought into consumption*, amounted to 88,661 quarters, and all other kinds of Grain and Meal amounted to 169,040 quarters; and the Irish Wheat and Flour imported, amounted to 779,504 quarters, and all other kinds to 1,692,305 quarters.

If

If you can get Ireland improved, she may send you as much food as at present (but this you want,) and she will raise a larger supply for the use of her employed peasantry. I beg to refer to the computations on the two Statements which I have compiled for the Committee. Mr. *W. Stanley.* 27 May 1835.

A STATEMENT of the AMOUNT of GOVERNMENT STOCK, bought for IRELAND in LONDON, and transferred to Ireland, from 1821 inclusive to the close of 1834; also of Government Stock bought in Ireland with *Irish* Money, and transferred to London, in the same Period, according to the Official Accounts published by the Board of Trade, Part 3, page 325, and to the Finance Accounts of 1834, published for Parliament, page 96.

	Transferred to Ireland.	Transferred from Ireland.
1821	£. 83,103 14 8	£. 9,694 2 5
1822	1,517,735 17 —	17,232 7 9
1823	809,030 7 2	—
1824	2,172,981 — 7	27,672 3 7
1825	3,536,888 15 6	254,323 5 8
1826	1,672,643 1 8	839,276 7 1
1827	524,186 4 7	1,999,234 19 9
1828	1,364,030 13 11	756,452 13 2
1829	1,151,808 9 8	758,122 2 9
1830	2,065,219 3 5	1,373,032 18 —
1831	1,311,718 8 6	515,646 9 8
1832	811,601 11 1	511,176 4 11
1833	607,391 2 2	1,059,365 16 2
1834	561,691 7 —	1,400,951 17 2
TOTAL	£. 18,190,029 16 11	£. 9,522,181 8 1

It is obvious to all who know that Ireland is a *remitting* country, that the stock bought for her in London and transferred to her accounts, must have been bought, either directly or indirectly, with *Irish* money; for, supposing that Government used *some* as a medium of remittance to its Irish functionaries, and *possibly* it did, still the stock must have been sold in Ireland for *Irish* money, to make the remittance available. The Total, then, of the first column represents *additional* Irish capital vested in the Funds. The Total of the second column also represents Irish money; for whether the stock was bought for Government, landlords living in England, or by agents of English companies, it was still bought in Ireland, *and not with money remitted from England,* although not all perhaps with money of the nature of capital.

George Poulett Scrope, Esq, a Member of the Committee; Examined.

1717. HAVE you any suggestion to make to the Committee?—I think that in case Parliament should place any further large grants of public money at the disposal of the Board of Works, to be expended in making new lines of road across wild and partly uncultivated countries, it is desirable that the grant should be accompanied by the following conditions, viz.:— *G. P. Scrope,* Esq M. P.

That a certain portion of every tract of waste land across which a new road shall be made by the Board be appropriated as Crown property, with the view of its being divided into lots of a limited size, and either sold in fee or leased out for long terms at moderate rents, on condition of their improvement and undivided occupation.

For this purpose I should suggest that the waste land on one entire side of the new road should be set apart to a fixed depth (say of half a mile) where the waste extended back so far; where the waste does not reach so far, the Crown allotment would of course stop at its confines.

The experience of all agricultural countries in both hemispheres has proved that it is only from occupants possessing a durable or permanent interest in the soil that a spirited or effective system of improvement can be expected; and the class of occupants who would be admitted by the Crown to these lots of land would be likely to afford a very valuable example to the tenants admitted by the land-owners to settle on the other side of the road, and indeed to the surrounding country.

By such an arrangement the peasantry of the country will be secured in a due participation in the benefits expected from the proposed expenditure of the public money; whereas if the whole of the waste land whose improvement is facilitated by the new lines of road remain unconditionally in the power of its present owners, they will be enabled almost wholly to monopolize the benefit of the improvement, by exacting high rents for the occupation of any parts of the improvable waste, as appears from the evidence of Colonel Burgoyne to be the practice at present.

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The present owners of these waste lands will have no reason to complain of a part of their property (hitherto of little or no value to them) being taken as a consideration for the expenditure of large sums of public money in improving and conferring a very considerable value on the remainder.

Indeed the proposition might, if necessary, be supported on higher grounds, namely, on the principle that waste lands ought to be considered the property of the state in trust for the people, or at all events should be appropriated by the state (compensating the legal owners to the full actual value of their interest) whenever they are found to be injuriously locked up from improvement in private hands, and that the increasing numbers, and unemployed and wretched condition of the labouring population of the state, attest that an enlargement is needed of the field for the development of their industry. The principle that the waste lands of every country are the property of the state or its Sovereign, to be dealt out by him among his subjects for the purpose of its improvement and its cultivation, is the original basis of the legal right to land-ownership in every country, and is still the express law in many of the largest agricultural districts of the globe, particularly in the East. The Americas, North and South, have recognized and established it as the foundation of their law of property in land. We have done the same in all our colonies. It is highly desirable that it should be re-introduced in a modified form into our legislation respecting land in this Island and Ireland; for, wherever liberal encouragement has been afforded by the state to the cultivation of waste land, by securing a more or less permanent interest in the soil to those who will expend their labour and capital in its improvement, there agricultural industry and agricultural capital have proportionately enlarged and extended themselves. The economical circumstances of the mass of every people are perhaps more extensively influenced by the more or less complete adoption of this principle than by any other that can be mentioned within the range of political or economical science.

I add another suggestion, namely, that a condition should be annexed to every grant or loan, upon favourable terms, to be made to private individuals or public bodies by the Board of Works, for purposes of improvement, viz. that all the labour employed be paid for in ready money.

Veneris, 29° die Maii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Thomas Charles Harrison, Esquire, called in; and Examined.

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1718. WHAT office do you hold?—Secretary to the Commission of Excise Inquiry; Sir Henry Parnell's Commission.

1719. Were you Secretary to the Commission of Revenue Inquiry?—I was.

1720. Was there not evidence given before that commission respecting the western harbours of Ireland?—There was. I ought to state that that evidence was generally on the subject of the Post-office communications with the British North American colonies, and the subject of the western harbours of Ireland was an important incidental point connected with it.

1721. Can you furnish the Committee with the evidence so delivered?—It was laid before Parliament, and printed under the title of Western Harbours, Ireland, last Session. (*See* No. 592, Parliamentary Papers, 1834.)

1722. What is that paper you have in your hand?—It is in substance the same paper with that which the Committee has ordered to be laid before it.

1723. Did you address a letter to Mr. Spring Rice respecting the western harbours of Ireland?—I did so in the month of August 1832; I was so much impressed with the importance of the general subject, particularly with reference to Ireland, that, assuming it was probable that the evidence (which I considered very valuable) which the Commissioners of Revenue Inquiry had taken might remain unnoticed, and that evidence being still at that time in my custody, as late secretary to that commission, I felt it my duty to draw up a statement bringing forward all the principal points contained in the evidence in question, which I addressed, not in the shape of a letter, but as a statement or memorandum for the use and information of Mr. Rice and of His Majesty's Government.

1724. Can you furnish the Committee with that statement?—I am not able to furnish the Committee with a copy of that identical document, because that document does not appear to have been recorded as official at the Treasury, probably in consequence

consequence of its having been drawn up as I have described, in the shape of a statement or memorandum; consequently, two months ago I felt it my duty again to submit the substance of that statement in the shape of an official letter to the Lords of the Treasury. The letter which I now produce is a copy of that to which I am referring, and is in substance precisely the same document as that which I submitted to Mr. Spring Rice in August 1832. *T. C. Harrison*, Esq. 29 May 1835.

1725. Does this paper contemplate the formation of a railway through Ireland to the harbour of Valentia?—My original statement of 1832 did not contemplate any railway; but it was the circumstance of having recently heard that such a project was in contemplation, which so strongly confirmed all the views I had myself taken of the subject upon public grounds; it was that circumstance that induced me to address this statement again to the Lords of the Treasury; knowing that it had not before been officially recorded, and that it was probable, therefore, it might have been altogether lost sight of.

1726. Be so good as to hand in that statement?—

[*The following Statement was then handed in:*]

Office of Excise Inquiry,
My Lords, 5, Whitehall Place, 28 March 1835.

HAVING only recently learnt that a very extensive project has been in agitation for establishing a grand steam communication by means of a railroad through the centre of Ireland, viz. from Dublin to Valentia harbour, on the south-west coast of Ireland, with branch railroads to the principal towns on either side of the main road, and being deeply impressed with the conviction that extensive benefits must accrue to Ireland by any measure which shall have the effect of attracting to that country a greatly increased inland intercourse, with all its concomitant advantages of increased diffusion of capital and employment and comfort, especially amongst the poor and industrious classes, I feel it to be my duty to submit to your Lordships the following observations, which are in accordance with a memorandum which I submitted to the Treasury in the month of August 1832, upon the subject of establishing a steam-packet communication between the south-west coast of Ireland and the British North American possessions, but which memorandum, I have reason to believe, has never been recorded or considered in the light of an official document, and consequently may not be in the possession of your Lordships. It is right I should premise, that the papers upon which these observations were founded consisted of a series of examinations, containing much valuable and interesting information, which had been taken by the late Parliamentary Commissioners of Revenue Inquiry in Cannon Row, and that these examinations were laid before Parliament in the last Session, and printed. Parliamentaty Papers, 1834, No. 592.

The attention of the late Commissioners of Inquiry had, shortly prior to the termination of their functions, been directed to the management of the communications between this country and its various colonial possessions, as well as with foreign parts. The communications with the British North American possessions necessarily formed an important branch of this subject, to which also the attention of the commissioners was more particularly called by the fact which they had ascertained in the course of their investigations, that at present almost the whole of the correspondence of Great Britain with those possessions was conveyed by the American packets from Liverpool to New York, with a total loss to this country of the revenue of postage legally due upon such correspondence.

It also appeared that a very great proportion of the personal communications between this country and the possessions in question were effected by means of the same New York packets, and it was evidently a matter for serious consideration, whether some arrangements could not be adopted which should secure to the British packets that conveyance, both of correspondence and of passengers, which, under present arrangements, is almost entirely diverted from them, as well as to this country that amount of postage revenue which is now entirely lost to it, and which may be estimated to be very considerable.

So strongly, indeed, was the superiority of the communications with the British North American possessions, by means of the Liverpool and New York packets, over those which were accomplished by the packets from Falmouth, felt, that as long ago as in the year 1825 a project was set on foot for the establishment, by private subscription, of a steam-boat communication between the western coast of Ireland and Halifax, by means of which it was hoped that much of the dependence of this country upon the aid of foreign vessels would have been obviated.

This project was not, however, carried into effect, although it is stated that an American company was formed at Boston for the purpose of meeting the British steam-boat at Halifax, by which a considerable degree of American support would have been secured to it.

The circumstances were brought under the notice of the commissioners in a clear and perspicacious evidence given by the Knight of Kerry, in which also the question of selecting a fit and proper harbour on the western coast of Ireland as the port of departure for the British packets destined for the North American colonies, is fully discussed. Evidence of the Knight of Kerry, 31 July 1829. Parl. Papers, No. 592, 1834. Page 24 to 39.

This question was felt to be one of much importance with a view to the accomplishment of the most rapid and punctual communications with the possessions in question, in which it is well known a great increase of wealth, population and property has of late years taken place, and the commissioners were enabled to obtain the evidence of the following individuals connected with some of those possessions who were ascertained at that time to be

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in London, viz. Sir Howard Douglas, Bart., late Governor of New Brunswick, Colonel Drury, Postmaster of ditto, Mr. Charles Fairbanks, a resident member of the Legislature of Halifax, Mr. Richard Smith, manager of the mines in Nova Scotia and Cape Breton, Mr. Busteed, chief clerk and registrar of the Supreme Court of Newfoundland, and Mr. Joseph Bates, a merchant of extensive intercourse with America.

The Commissioners further obtained much valuable information, illustrative of the different bearings of the subject, from Captain Beaufort, the hydrographer to the Admiralty, in an evidence given by him on the 20th May 1830.

Parl. Papers, 592, 1834, pages 1 to 24

Sir Howard Douglas stated, that for the first two years of his being at New Brunswick, he received his correspondence exclusively in the mail bags by the packets; but that latterly finding, from the frequency as well as regularity of the communications by the line of New York, he could get more immediate information from home, he had a good deal of his correspondence sent to him *viâ* New York, and very often got, between the period of the arrival of the packets, private letters of much later date. He further stated, that a very great and increasing proportion of the mercantile correspondence of persons residing in New Brunswick was received through New York, and that a very great portion of the commercial correspondence to London from Canada passed also through New York, and frequently, he believed, the Government despatches to Upper Canada likewise. Sir Howard Douglas further described the correspondence to St. Andrew's, in New Brunswick, to have latterly increased so considerably as to require a horse and waggon to carry it, and that a great part of his correspondence from England came by the way of New York and Boston; and as regards passengers, that a great many took the same course, with the view to saving time.

These circumstances Sir Howard Douglas attributed to the convenience arising out of the frequency and regularity of the opportunities of conveyance between New York and England; and he expressed his opinion, that if a regular, cheap, expeditious and frequent communication were established by steam with Halifax, there was no doubt that all the correspondence of Nova Scotia and Prince Edward's Island, and nearly the whole of that to New Brunswick, would be carried on through such a channel, and that so soon as confidence, the result of some successful trials, should have proved the practicability and safety of the conveyance, passengers to and from those Provinces would avail themselves of it, and also the passengers to and from the Canadas would seek that line in summer, if a good and frequent steam communication were established with Quebec.

Sir Howard expressed his opinion of the perfect practicability of the establishment of a steam communication, taking the probable duration of the voyage at 16 or 18 days, and the capability of a steam packet to carry the necessary quantity of fuel; and he further stated, that there are great quantities of coal in the British Provinces, Cape Breton and Picton, in Nova Scotia, and vast quantities in the province of New Brunswick; and he added, that the establishment of steam between America and England had excited very intense interest, and was looked to with very great solicitude in all the provinces.

With regard to the proposed port for departure and arrival from and to this country, Sir Howard expressed his opinion that there could be no doubt that a departure taken from the westwardmost part of the United Kingdom, by steam vessels either starting from or calling to replace their colonial stores at such port, would be greatly advantageous in all respects, inasmuch as the voyage from land to land would be thereby made the shortest possible, and increased space for freight and passengers would be thereby obtained, and that for these reasons the harbour of Valentia would be an important port for departure and arrival.

Parl. Papers, 592, 1834, pp. 44 to 51.

The evidence of Colonel Drury, the postmaster of New Brunswick, is strongly confirmatory of the facts and opinions stated by Sir Howard Douglas. Colonel Drury stated, that the letters coming to New Brunswick by way of the United States had increased very much, and in the same "ratio the letters by the English packets had been decreasing, there being such a constant communication between Liverpool and New York, that all the mercantile population at St. John's got their letters out in that way, for they found they got them much quicker, and that it is not to save the expense of postage, because the postage in the steamers is quite as much." Colonel Drury expressed his opinion that the establishment of a steam communication between Valentia, in Ireland, and Halifax, would be a very great benefit to the province; that it is probable steam vessels would be established from Halifax to New York, to Boston, and to Quebec; and that as regards both passengers and letters which now go by the American ships, they would all go by the steam packets from Valentia, inasmuch as passengers would, of course, prefer going out in 14 days to taking the chance of being 30; in confirmation of which opinion, and that passengers would prefer going across the Irish Channel and through Ireland to Valentia, to stepping at once into a New York packet at Liverpool, he added the fact of his having been once sent on shore in a boat on that part of the coast of Ireland, and that the vessel was three weeks afterwards going to Liverpool, and that it frequently happens that vessels are a fortnight from Liverpool getting out of the Irish Channel, 10 days very often, and in that time (a fortnight) in a steam boat from Valentia, you would be at Halifax.

Colonel Drury calculated that there would be a sufficient number of passengers to pay the expense of steam vessels, upon the ground that not only the passengers passing between the colonies and this country, but that also the passengers going to the United States would be induced to go by the Valentia and Halifax steam vessels, inasmuch as calculating upon 14 days from Valentia to Halifax, and three days from thence to New York, they would thus get to their journey's end in 17 days.

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Parl. Papers, 592.
1834, pp. 55 to 62.

The evidence of Mr. Fairbanks, a member of the Legislature of Halifax, contains much important information, and many valuable suggestions in reference to the subject. He confirmed the fact of a large portion of the correspondence with Halifax from England, coming by the way of the States; also of the correspondence to Quebec; and with reference to the project of a steam communication with Halifax, he stated the general opinion that it would be a measure of the greatest general importance, and one of the most effectual for the benefit of all the colonies that could be adopted; and he expressed his own belief upon the subject to be principally settled in favour of the beneficial results of a steam navigation with vessels of suitable dimensions, properly manned and established to go from Liverpool, touching at Valentia, and then proceeding to Halifax twice a month; that if that could be effected, his opinion was not only that the greater part of the passengers to British America, but that two-thirds of the American letters, in addition to all the colonial letters, would go by that communication; that there is not the slightest doubt that a communication by steam boats would be set up from Boston to Halifax without delay; that in a pecuniary point of view he was satisfied the steam communication would yield a large revenue, and that it was regarded in the colonies not only as a measure of the utmost importance at all times, but in time of war as most essential to the protection of the colonies, and the preservation of their communications with the mother country.

With regard to the most eligible points for arrival and departure on either side of the Atlantic, Mr. Fairbanks states forcibly the reasons why he considers Halifax the most eligible of the colonial ports, from the circumstance of its being open at all seasons, and from the fogs and floating ice which frequently render the approach to St. John's and the other ports difficult, if not impracticable; and with respect to the eligibility of Valentia, he stated, upon the authority of practical men, that in going to America "from Liverpool, they consider themselves when they get as far as Cape Clear out of all danger, and so in coming back that the principal dangers are in the Channel."

Parl. Papers, 592, 1834, pp. 62 to 67.

The evidence of Mr. Richard Smith, who had been resident three years in the respective colonies of Nova Scotia, Cape Breton and New Brunswick, also contains some valuable information and suggestions. He expressed his opinion that a very small portion of the letters that are sent from North America go by way of the present Government packets; but that if a steam communication were established between this country and Halifax, both letters and passengers would come thither; and he particularly pointed out the advantages of Halifax, as the best port for arrival and departure, from its being the metropolis of the province, and the chief port, and more accessible in the winter, being always open, and, to use the words of Mr. Smith, "as fine a port as any in the world." Mr. Smith's evidence is valuable, as giving the result of his experience of the comparative merits of steamers and of sailing vessels, having been in a steamer in a very heavy gale of wind in the Bay of Biscay for three or four days without the use of the rudder, which was shivered, and had no command of the vessel, notwithstanding which he described the steam engines as having managed the vessel extremely well, and never shipped a bucket of water all the time. On another occasion he describes himself to have seen the Atlantic "in as heavy a gale of wind as could possibly blow; that he was then in one of the British packets homeward bound from Halifax; but that if he had been in a steamer at the time he should have considered himself much safer than he did in the circumstances in which they were. The outward-bound packet which crossed them at sea had never been heard of, and must have foundered."

With regard to the most eligible port from which to depart from this country, Mr. Smith considers Liverpool as the port which would be the most likely to make the establishment answer; but he added his opinion, that those who could afford it would prefer going to Valentia, and that he should himself prefer going thither with a view to shortening the voyage.

Mr. Smith further stated, that he had no doubt whatever, in the event of the establishment of a steam communication to Halifax, that Boston would co-operate and establish steam boats to come to Halifax, which would complete the navigation by steam from New York to Halifax, there being already a steam communication from Boston to New York.

Mr. Smith's opinion, as manager of the mines, of the peculiar fitness of the Picton coal for the use of steam engines is deserving of consideration.

The Picton mines are 80 miles distant by land from Halifax, and will be connected with that town by the Shubenaccadie Canal now forming.

Mr. Busteed, 2 June 1829. Parl. Papers, 592, 1834, pp. 51 to 55.

The evidence of Mr. Busteed, chief clerk and registrar of the Supreme Court of Newfoundland, is strongly illustrative of the delays incident to the navigation of the Channel. On one occasion he describes himself to have sailed from London on the 9th of September, and that they did not get clear of the land till the 5th or 6th of October, and did not land till the 8th of November (60 days), for which reason he points out the western and south-west coast of Ireland as the proper point from which to start from the United Kingdom, by which, forming a conclusion from his own case, he considered that nearly a half of the voyage would be saved. Mr. Busteed considered the establishment of a regular steam communication between this country and the North American Colonies as a measure of great public utility, and one of the most desirable objects that could be accomplished.

Mr. Bates, 25 Jan. 1830. Parl. Papers, 592, 1834, pp. 67 to 71.

The evidence of Mr. Bates, a partner of a house having a very extensive intercourse with America, contains some points well worthy of attention. He states distinctly that all their correspondence goes by the Liverpool American packets, and they never send except to the West Indies by the established packets; that their correspondence with Canada goes also

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also by the Liverpool and New York packets, and that the greatest part of the correspondence of the United Kingdom, whether with London or with Liverpool, as well as a great portion of the Canadian correspondence, comes in the same way; and he added, that he suspected, whether lawfully or not he did not know, that the bulk of the Canadian and American letters were sent direct to Liverpool, in parcels from the coffee-houses.

The opinion of Mr. Bates as to the probable effect upon the correspondence, if a mode of communication more rapid than by the present Liverpool packets could be resorted to, may be considered the more deserving of attention, as coming from the partner of a house of extensive intercourse with the United States. He considered that the establishment of such a communication would entirely "have the effect of diverting the correspondence from the Liverpool packets that they send now by way of Ostend, because they find it goes more quickly in that way than direct by Hamburgh; that it is a matter that is watched by all merchants, to have their correspondence move as quickly as possible."

From the tenor of the information conveyed by all these individuals, it is evident that at present but a very small portion of the correspondence, either with the United States, or with the British North American Colonies, is conveyed by the British Packets; and that the same is also the case as regards passengers; and it must be matter for serious consideration, not merely with reference to the large amount of postage revenue which is lost at present to this country, but upon grounds of a much higher and more extended character, whether other arrangements than those at present in force should not be adopted for the carrying on the communications between the United Kingdom and its possessions in North America. There are many points of view in which it will be necessary to consider the question, the most material of which, however, is the expediency, or otherwise, of substituting steam packets in lieu of the present sailing packets.

The most important question to be considered is, whether Falmouth should still be selected as the port for the departure of the North American packets, either in case of the employment of steam packets or of the continuance of the present sailing vessels. With regard to the first of these points, the experience which the Government and the Postmasters General have had of the applicability of steam to the navigation of the ocean, since the establishment of the Falmouth steam packets to Lisbon, Gibraltar and the Mediterranean, will afford sufficient grounds for forming a conclusion as to its applicability for crossing the Atlantic. From the evidence above quoted, there would seem to be very little doubt but that a large portion of correspondence, as well as of passengers, would be diverted from the present Liverpool and New York vessels, by the increased rapidity of communication which would be induced by the employment of steam instead of sailing packets to North America; that, in fact, the British packets would be made in a much greater degree than they are at present, the means of accomplishing those objects for which they are specifically employed; viz. the conveyance of the correspondence and the carrying on the communications generally between the United Kingdom and the British North American possessions. A considerable outlay will necessarily be required for the establishment of fit and proper steam boats; and it must be matter for the consideration of His Majesty's Government and of the Postmaster General, whether the important objects to be accomplished, in reference particularly to the rapidly increasing prosperity of the possessions in question, as well as the probability of a return for such outlay, are such as to justify its being incurred.

See the description already quoted from Mr. Smith's Evidence of the Steamboat, with its rudder shivered in a storm in the Bay of Biscay.

The question of a probable return for the necessary outlay mixes itself up also very materially with the next important point for consideration, namely, whether Falmouth should still be selected as the port for the departure of the North American packets.

The difficulties, delays and dangers, incident to the navigation of the Channel, are so universally known and acknowledged, that it seems scarcely to be a matter of doubt, more particularly with reference to sailing vessels, that that port must be the most eligible as a port of departure, as well as of arrival, to and from which such vessels can at once sail free from all such dangers and delays. It has, doubtless, been upon such grounds that the port of Falmouth has hitherto been selected as the most eligible port for the departure of the British packets, whether destined to North America, the West Indies or the Mediterranean, inasmuch as from its extreme westerly position, and consequently great proximity to the mouth of the Channel, vessels sailing from thence are exposed in so much less a degree to the delays and dangers in question. Captain Beaufort, the hydrographer to the Admiralty, the whole of whose evidence upon this subject is well deserving of attention, stated "that although Falmouth is only 12 leagues to the westward of Plymouth, even that distance gives it an obvious superiority as a port of departure, to which favourable circumstance no doubt must be attributed the continued preference which Falmouth still enjoys over the neighbouring port of Plymouth, which in so great a degree possesses the same recommendations in point of situation, with many superior claims to be selected, as being the seat of a public naval establishment, more especially since this branch of the packet service has been transferred to the department of the Admiralty.

Capt. Beaufort, 20 May 1830. Parl. Papers, N°592, 1834, pp. 40 to 43.

But although there may be no doubt that at the time this packet establishment was formed, Falmouth was properly fixed upon for its station, as being the port which afforded the facilities above alluded to in a degree beyond any of the other ports of Great Britain, it has now become a matter well worthy of consideration, how far it may be expedient to continue that port as the exclusive station for these establishments, under circumstances which may be said to have extended the power of selection to all the harbours of the United Kingdom.

Under many of the circumstances described in this Paper, it is obvious that in considering the subject under discussion, the ports of Ireland must be those which are to be principally

cipally kept in view, inasmuch as without enlarging upon the altered situation in which that portion of the kingdom is placed with relation to England at the present time, as compared with the period at which the packet establishment was formed, or upon the circumstances which have produced a change so beneficial to both countries, there can be no doubt that, on any subject now arising for discussion in which both parts of the United Kingdom have a common interest, Ireland must be considered as an integral portion of that kingdom, and as affording with equal claims to consideration her local or national advantages for the promotion of the object in view. For it must be remembered, that in addition to the incorporation of the two Islands, produced by the legislative and political union, they have in a remarkable degree been brought together by the abolition of all commercial distinctions which impeded the free interchange of their respective productions, and by the general improvement which has taken place in their communications since the introduction of steam navigation, by means of which the intercourse between the opposite shores is maintained with a frequency and despatch nearly as complete as if it took place wholly over land.

It is true that the delays and difficulties so frequently met with by the sailing packets in their endeavours to get out of the Channel, are not of equal force as regards steam vessels, over which contrary winds and currents have a very diminished influence, and it may therefore still be deemed expedient, in the event of the establishment of steam packets, to adhere to the port of Falmouth as the station of principal departure. From thence all the London correspondence, the bulk of which at present, according to the evidence of Mr. Bates, is sent in parcels from the coffee-houses to Liverpool, by which the British postage is altogether evaded, would most probably be forwarded. This, however, it is fair to assert, would equally be the case if the port of primary as well as of final departure of the steam packets were at once from the western coast of Ireland. That such must sooner or later be the case, if any hope is entertained of accomplishing, by means of the British packets, that which is now almost entirely performed by the American vessels, namely, the conveyance of the correspondence as well as of the passengers from Liverpool, and the great manufacturing towns in the north of England, as well as from Scotland, is rendered sufficiently evident by the facts which have been already stated.

With regard to the proper port on the south-west coast of Ireland, to be selected as the port of departure, the harbour of Valentia appears, as well from its geographical position, its superiority as a harbour, and the facility of egress and ingress, as from the concurrent testimony of witnesses, to be a very eligible port.

The fact stated by the Knight of Kerry in his evidence, that vessels in their ordinary voyages from Halifax to Liverpool, frequently make the Skellig light, which is only nine miles from Valentia, is important, as showing how nearly the harbour of Valentia is in the direct line of the passage from North America to Great Britain, and *vice versâ*; and that, consequently, assuming steam packets to be established, and assuming them still to start with the London correspondence and passengers from Falmouth, it would in fact be in their direct course to call at Valentia to replenish their coal stores, and to take on board the correspondence and passengers from the North of England and from Scotland, in which case also there are good grounds for assuming that a steam communication would ere very long be established by private enterprise between the ports of Liverpool and Valentia.

It must be always borne in mind, in considering subjects of this kind, that it is not merely the probable amount of revenue arising from postage, which is to be considered, but that objects of far higher consequence and of extensive national importance, not only demand attention, but at the same time demand, or it should be rather said, would justify to a certain extent the expenditure of a portion of the revenue of the Post-office, with a view to the accomplishment of those objects.

In the present case the evidence of the Knight of Kerry points out very fully the advantages, in a political point of view, which would result from the establishment of Government steam packets between Valentia and Halifax.

In addition to these, it is impossible not to bear in mind the extensive benefits which would probably be ultimately derived by a large portion of the kingdom of Ireland, from the increased intercourse which would be carried on through its whole extent from Dublin, as well as from Belfast to Valentia, and likewise from Waterford and Cork to Valentia; in fact, all along the lines on which passengers to and from America and England and Scotland would travel, and this in addition to the advantages arising from the gradual establishment of a town of probably considerable extent and importance on its south-west coast, and one which, in the possible event of war, would become in many points of view of especial value to the United Kingdom.

In the present state of Ireland it is submitted, that any measure which is likely to be productive of benefit to that kingdom must, to a certain extent, justify the expenditure of a portion of the public revenue, the more especially if there are other grounds of national importance to justify such expenditure; and any measure which shall contribute to increase the inland intercourse of individuals from Great Britain through a considerable portion of Ireland, and consequently add to the diffusion of capital and employment, must be productive of extensive benefit to, and tend greatly to the welfare and prosperity of that kingdom.

I have the honour to be, My Lords,
Your Lordships' most faithful and obedient Servant,
(signed) *T. Cha' Harrison.*

To the Lords Commissioners
of His Majesty's Treasury.

T. C. Harrison, Esq.

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1727. Do you consider the public at large in this country, as well as in Ireland, are extremely interested in the project of a railway to the Harbour of Valentia?—The Committee will observe, on perusing the above statement, the extensive benefits which I have contemplated as likely to result to this country, as well as to the North American Colonies, and especially to Ireland, from the establishment of a regular and punctual communication by means of steam vessels from Valentia Harbour to Halifax, in consequence of the increased intercourse which I conceive would be inevitably caused by such an establishment throughout the whole of the great lines of communication in Ireland, from Dublin as well as from Belfast to Valentia, and likewise from Waterford and Cork to Valentia. I need not add how greatly these important objects would be facilitated by the establishment of railways.

1728. Were the Commissioners prepared to make any recommendation respecting the packet station in Ireland?—The Commissioners of Revenue Inquiry were in the midst of that, amongst numerous other inquiries relating to the Post-office, upon which they had collected important evidence, at the period of the termination of their functions.

1729. Do you recollect whether they were prepared to make any recommendation?—They were in fact considering the subject; and the important evidence which they had collected, of which the Committee are now in full possession, will best show the progress which they had made towards arriving at the proper conclusions; but I am not prepared to say that they had made up their minds to an absolute recommendation.

1730. Can you state what was running in their minds upon the point?—The mass of evidence certainly pointed to Valentia Harbour; and I should say, to the best of my recollection, that, as far as the commissioners had had the opportunity of considering and discussing the point, Valentia Harbour was deemed the most eligible station for the objects contemplated.

1731. Have you formed any opinion as to what port on this side of Ireland would be the best to communicate with England, still bearing in mind Valentia Harbour?—In fact, I combine Valentia Harbour with all the three great lines of communication; viz. Belfast, with a view to the communications with Scotland by Donaghadee and Port Patrick; Dublin, for the communications with Liverpool and the great manufacturing districts, as well as for the main line of communication from London *viâ* Holyhead; and Waterford, for the communications from the South of England *viâ* Milford and Bristol.

1732. My question is with reference to the formation of a railway; from which point in Ireland do you think it most advisable that the railway should start, having Valentia as its ultimate point of destination?—I should say at the first blush, Dublin certainly; but the question of the railway is new to me; I have not considered the subject so as to give any decided opinion upon it, but I should say that Dublin, upon the first consideration, was the point in the Irish line which would be most important to be introduced.

1733. Do you consider Dublin a more advisable starting point for a railway than Waterford?—With reference to London, it would be matter for consideration, because it is almost a straight line from London to Valentia *viâ* Waterford.

1734. But it would be desirable for both?—I think so; but I contemplate, if capital can be found for them, that there should be three great lines; viz. from Belfast, from Dublin and from Waterford.

1735. Suppose the great Western Railway to be completed, would not the line from Waterford to Valentia be more used than the line from Dublin to Valentia, as the means of intercourse between America and these countries?—I should say, that from London, certainly, Waterford might become the most important and most frequented line, because, as I have already observed, it is almost a straight line from London to Valentia *viâ* Waterford and Milford, the distance also being less by about 40 miles, than the distance of London to Valentia *viâ* Holyhead and Dublin; the total distance by the latter route being about 537 miles, whilst that by Waterford and Milford is only 496 miles.

1736. And could not the line be completed at a much less expense than the line from Valentia to Dublin?—The difference of expense would, I should conceive, be very considerable, inasmuch as the distance from Waterford to Valentia is only 140 miles, whilst that from Dublin to Valentia is 207 miles; a total difference of 67 miles.

The

The Knight of *Kerry*, called; and Examined.

1737. I BELIEVE you were very instrumental in calling the attention of the Government to the necessity of carrying on public works in Ireland upon an extended scale some few years ago?—In the year 1817, in consequence of the great distress prevailing, I represented to Lord Liverpool's Government the expediency of applying public money towards the execution of works of a useful nature, upon the principle of repayment; and in that recommendation originated the first application of such money for that purpose.

1738. Did your recommendation apply to England as well as to Ireland?—My recommendation only applied to Ireland. I afterwards submitted to the Duke of Wellington's Government a detailed proposal for the formation of a Board of Works in Ireland, and a large application of capital to works of a remunerative description.

1739. Was the whole of your project carried into effect?—The Duke of Wellington had agreed to make an experiment of the plan which I proposed in a certain number of counties, and if it succeeded to extend it. In the mean time the Government was changed, and Lord Althorp sent for me to learn the nature of the proposition which I had made to the former Government. I had a very full communication with him, at which Mr. Spring Rice and Sir John Newport attended. Lord Althorp suggested all the difficulties that occurred to him on the proposition I made, which I answered in a manner satisfactory to his Lordship, and in which answers I was borne out by the opinions of Mr. Spring Rice and Sir John Newport; and it ended by Lord Althorp stating his determination to carry the plan I recommended into full effect. The Board of Works now established was adopted, but the powers given to that Board fell very far short of what I had proposed. The nature of the proposal was contained in a paper that was lithographed, and furnished to the different departments. I unfortunately have no copy of it by me, but I have no doubt before the Committee closes I shall obtain it; and I should rather refer to that for precision, than venture to give oral evidence upon the subject.

1740. Does that paper embrace your views generally as to public works?—Yes.

1741. Have you seen any occasion to add to or alter those views?—The working of the system under the Board has been so useful, as far as its powers extend, that I feel more confirmed in the original views I entertained upon the subject.

1742. Do you consider the Act under which the present Board of Works is constituted as very defective?—I do in many respects. I have been looking over the evidence given by Colonel Burgoyne to this Committee, and I concur entirely in the observations he makes in his evidence. They are given with so much accuracy, that I should rather adopt them than repeat and perhaps weaken them.

1743. This Committee has received evidence of a very strong character from most intelligent witnesses, who are perfectly disinterested, many of them, in the project, to the effect that it would be most desirable not only for Ireland, but for the United Kingdom at large, that a railway should be constructed across Ireland to the harbour at Valentia; you have, I believe, turned the subject very much in your mind, and do you concur in those views?—From local circumstances I am a party so very much interested, that I would say to this Committee (as I did to the Commissioners of Revenue Inquiry) that the whole of the case of the railroad or the adoption of a packet station was a professional question, and you ought rather to have professional parties to give their opinion upon it, than any body having local interests. I am perfectly ready to suggest sources of information which probably may not occur to the Committee. For instance, both respecting the point of departure, and with respect to the question of the utility of railroads as a mode of transit across Ireland, I should say the most impartial and judicious opinions would be derived from Americans. They are the persons carrying on the trade, and they are the parties who would become travellers along such lines of communication; the raw material which is the subject of transit is American, it is conveyed in American vessels, is American property, and the owners are the parties interested in its cheap and safe conveyance. When a plan was formed many years ago for the purpose of a passage across the ocean by steam, the directors derived the most valuable information from the Americans and the British colonists. There are several of these at present in this country; and I should say, that Americans and professional men, engineers and naval officers, are the parties from whom it would

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be most desirable to obtain information upon all those points to which the last question refers.

1744. In the county of Kerry has not extraordinary benefit been found to result from opening roads through uncultivated and mountainous districts?—Yes, very great. The improvements are set out in various reports of engineers, which are accessible to this Committee, and which give the specific details establishing such benefits in the most complete manner. I can, in a general way, say that great benefit has been derived to the county of Kerry from the execution of public works.

1745. Do you not think also that the general revenue of the country has been much increased by it?—Very much.

1746. Do you not stand in need in your county of such public works, and is there not ample room for them?—Public works to a great extent have been already executed in Kerry, some are in progress, and there is still a large field for improvement.

1747. What public works have been executed in Kerry?—There are two transverse lines of road passing from Limerick to Killarney, and from Listowel to Cork, which open a district, theretofore an uncultivated waste, and a sort of fastness for robbers, and which is now a scene of great improvement, in which lands are cultivated, manures distributed in every direction, new farms established, and comfortable houses built. The case is so accurately detailed in the Reports of Mr. Griffiths and Mr. Kelly, that I would recommend the Committee rather to refer to them. There is also a line of road made in the mountain barony of Iveragh, which is now passable for carriages; before, all the butter, the produce of that district, was conveyed upon horses' backs, a distance of 90 miles, to Cork; a horse carrying two, at the utmost three firkins, and the carriages now conveying from 24 to 30 firkins.

1748. Are those Scotch cars?—Yes, principally.

1749. Were the roads made entirely at the public expense, or did the district contribute to it?—The last road I alluded to was the first made; it was made by an advance of public money, every shilling of which has been repaid to Government.

1750. Has that been the case with all roads made in Kerry?—No; the transverse roads between Cork and Limerick, and the other towns mentioned, were made, I think, by free grants. There are several other roads made by advances of public money, and there is a great one in progress of execution.

1751. Independent of the great benefit arising to society from the improved state of the country, has not the public, in your opinion, received an equivalent in the increase of the revenue by the money so expended?—I know in several cases it was established that a considerable amount of revenue was received in districts where none was levied before; and it may generally be said to be true; it was proved in the cases of Mayo and Galway.

1752. Is it not also applicable to Kerry?—I should say it was.

1753. Did you receive a loan from the Commissioners of Public Works?—Yes.

1754. Was it for the purpose of working slate quarries?—Slate and stone quarries.

1755. You say that tracts of land have been brought into cultivation in the neighbourhood of those roads since their formation; upon what tenure have they been taken into cultivation in their present occupancy?—On various tenures. There are different proprietors; and the lands held under different proprietors differ in the extent of tenure; they give some longer and some shorter, but generally a lease of 21 years.

1756. At a fixed rent?—Yes, generally for fixed rents.

1757. Which of the various descriptions of tenure under which property is taken do you consider the most available, as a means of encouraging these improvements and cultivation?—I should say a lease of 21 years.

1758. Is that a sufficient tenure to induce a spirited system of cultivation?—I think a check on the part of the landlord by a reasonable limitation of tenure is desirable.

1759. Is there not such a competition for land in most districts of Ireland that the landlords of waste lands who proposed to let it out to tenants at will, would still find occupants who would lay out their labour upon the land?—Such is the competition, that you will find occupants for the soil, however short the tenure they have; they would work that land for food; I should not say for improvement.

1760. Under

1760. Under that system improvements would not be carried on in a spirited manner?—I think not.

1761. Would that not depend upon the confidence which they have in their landlords?—A great deal. I have had considerable improvements conducted on my own property by tenants at will.

1762. Would it not be desirable, in your opinion, to encourage the granting out of lots of land upon permanent leases, with a view to its improvement; and would it not be just for the Crown, when a tract of waste land has been opened upon by a large expenditure of public money, to appropriate a certain portion of waste land for the purpose of leasing it out, or for granting it for long terms to individuals?—I recommended a plan of that description to the Crown long since, and I think it would be attended with very desirable results.

1763. Will you specify the particulars of that plan?—I allude to a tract of land now come into the hands of the Crown, and which they are farming.

1764. Your proposition did not extend to waste lands generally improved by the making of roads?—It was a recommendation as to a particular estate that had fallen into the hands of the Crown, Poble-o-Keefe.

1765. But the question is, whether you do not think it would be desirable to increase the landed property at the disposal of the Crown for this purpose, by appropriating to the Crown a portion of the waste lands opened through this expenditure of public money in the making of roads across them?—I do not think it desirable to make the Crown an extensive landlord of new tracts.

1766. Would not the terms on which the Crown would lease out this land, with a view to encourage its improvement, be more likely to produce a spirited improvement of the tenantry, than that which the landlords would voluntarily offer?—Certainly, if it was conducted under a proper system, the Crown could apply greater sums than private parties, but I think it is rather beneficial that the Crown should take the lead in experiments made on a limited extent.

1767. Do you think the objection against the Crown becoming a permanent landlord might be obviated, by requiring that the Crown should after a certain period dispose of the lands to other individuals?—That implies the danger of allowing the Crown to become a permanent landlord.

1768. Could it be corrected in that way?—I think it might.

1769. And if so, it would be an advantageous arrangement?—The powers of the Crown to improve must be greater than that of individuals.

1770. Would not the same objection apply to public companies formed to improve land in Ireland?—I think, in general, the same objection would apply to a company; they would require a similar check to that which was suggested in a former question.

1771. Would you consider it desirable that proprietors under strict settlement, should have the power of charging their inheritance with a certain portion of the expense of great permanent improvements upon the estate?—I most strongly recommended that in the plan I laid before Government.

1772. Have you seen any thing since to alter your opinion upon that subject?—No, quite the contrary.

1773. What check would you provide for the due administration of such powers in Ireland?—The check I recommended was, a deliberate examination of all such questions by the Board of Works, through its officers, and a decision of the Board thereon.

1774. Would you think that would be quite sufficient in the case referred to in the last question?—I treated it as sufficient in my plan.

1775. Would you think it necessary that the Court of Chancery should have any controlling power over such disposal of property?—I consider the Court of Chancery has such power over any property in that court. I think it would be desirable to call in the check of the Court of Chancery if it can be cheaply obtained.

1776. Are you aware that the heritors of Scotland have that power?—Yes. They exercised it in the case of Highland Roads and Bridges, and I understand that they exercise it in the case of private improvements under particular Acts.

1777. You would call in the Court of Chancery, in concurrence with the Board of Works as an effectual check; have you any idea what limitations you would place on the amount expended by the proprietor in such a case as that?—That would depend very much upon the purpose to which the expenditure is to be applied.

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It should vary very much in its application to any purpose of ornament and luxury compared with that of substantial improvement.

1778. Ought it not to be confined to improvements most strictly?—I should say so.

1779. An improvement that would be of permanent benefit to the property?—In the plan I proposed, I contemplated nothing but substantial improvements of the property, conducted upon the most judicious principles, and with all the checks that men of science could apply under the Board of Works.

1780. Do you think the operation of such a power would be very beneficial to the land-owners of Ireland and this country too?—I think Ireland stands particularly in need of some such powers.

1781. Do you contemplate any difficulty in the exercise and control of such powers?—Not with the checks that are recommended.

1782. Would it not be of essential benefit that money should be advanced for this purpose to the landed proprietor by Government, at a moderate rate of interest, and with an easy sinking fund?—I should think where the security for repayment is adequate, that it is the interest of Government and the country, as well as of the parties, that it should be advanced on the most moderate terms, both as to interest and repayment.

1783. Are not the terms contained in the present Act, such as to prevent all applications by private individuals under it?—I think they amount to such a discouragement, as very much to defeat the purpose of the Legislature in the Act.

1784. Are you aware of any advances having been made under the Act to private individuals?—An advance was made to myself by the Board of Works.

1785. Under that Act?—Yes.

1786. Can you state to the Committee the expense attending upon that transaction?—The loan was 7,000*l.*

1787. What was the expense?—I think it was above 150*l.*

1788. Was the estate so given in pledge, encumbered?—Yes.

1789. Were you obliged to apply to the incumbrancers to consent to the loan?—Yes, and to give a precedence to Government.

1790. Could you procure the money without obtaining the consent of the mortgagees to such precedence?—Certainly not.

1791. Has not the property been considerably benefited by the advance?—A work of considerable extent and value, I may say, has been created by the application of the capital.

1792. And employment afforded to the poor?—Yes, extensive employment afforded.

1793. How many men are employed at the quarries?—The number of men varies from 150 to 200, and that number will be increased in proportion to the uncovering of surface.

1794. How many men were employed at the time the loan was advanced?—Fifty to seventy, upon an average, previous to the loan.

1795. Is it not in a very remote part of the country where the work is situate?—Yes, the most distant part from London, perhaps, in the kingdom.

1796. If the season has any effect on the number of men you are able to employ there, how has the 7,000*l.* been the means of employing 150 or 200?—A part of the application of that capital was for the building of houses in which permanent workmen are employed connected with the works.

1797. Was there not additional expense incurred on account of the loan, to that which you have already stated?—Very considerable expense, exceeding in the entire 350*l.*

1798. State to the Committee what that was?—There were titles to be made out.

1799. As strictly as if you were borrowing from a private individual?—Yes, a title was to be made out to the satisfaction of law officers of the Crown, as counsel to the Board; and being strict tenant for life, there were deeds to be executed by my eldest son, who concurred in the security; there were also deeds of a voluminous kind to procure for the satisfaction of the Crown; the precedence to be allowed by the mortgagees and by my younger children. I believe that few persons whose estates are settled and mortgaged could comply with the restrictions of the Act so as to obtain loans, however important to the inheritance their application might be.

1800. Can you suggest to the Committee any means of getting rid of such expense

expense incident upon the loans of money to individuals?—I should consider that a question for lawyers, as to what legal expenses can be saved.

1801. Would not considerable expense be saved, if priority was given in all cases to the loan made by Government?—Certainly.

1802. In your opinion, should such precedence be given?—I think it ought, with a sufficient check for the application of such loans.

1803. What check would you propose?—It should be first established by reference to the Board of Works, that the application of such money would be most beneficial to the inheritance, and that the works for the improvement of such property be conducted under the severest control from the Board of Works itself.

1804. In your opinion, would that be a sufficient check?—That is what I recommended.

1805. Would it not be a violation of the contract with the mortgagees and the other incumbrancers?—With a due check, it must always operate to increase the security of the land.

1806. Would you give the Board of Works the power of draining any district upon the application of a certain number of proprietors, the benefit derived to the lands to be ascertained, and the expenditure to be a charge upon the estate?—The principle upon which I recommended any great works was, that besides the previous examination and the engineer's report as to the mode of executing any improvement, that the repayment should be made as soon as possible by the districts improved.

1807. Are there not considerable tracts of land in Ireland capable of great improvement by means of drains, but where the proprietors are unable to carry it into execution, not having the power to enter the lands of their neighbours?—There are.

1808. Would not that difficulty be overcome by giving the power to the Board of Public Works?—It is absolutely necessary to give such a power to some authority; I preferred giving the power to the Board of Works, if properly constituted, rather than to any local board whatever.

1809. Can you give us any information respecting the desirableness of communications to America through the West of Ireland, besides that which we have already got in the Papers printed by the House of Commons last year?—Lord Wallace and other Commissioners of the Revenue Inquiry told me, that they had nearly made up their minds, if their official power had continued a little longer, to recommend a general packet station for the southward and westward, at the most westerly port of Ireland suited for such purposes. Since that, the Duke of Richmond, as postmaster-general, called for the production of those papers contained in the Report laid before Parliament called "Western Harbours," and was disposed to adopt the same view for establishing the best communication for mails with our North American Colonies. Those are the two principal circumstances that have arisen of an official nature.

1810. Do you not consider the plans printed with that Report afford quite unanswerable evidence of the necessity of establishing a post-office communication from the West of Ireland with our colonies?—I am a party very much interested in the question, and might be supposed to be biassed: I would rather refer to facts. It certainly is the opinion of almost all colonists and Americans that I have communicated with.

1811. Supposing a general packet station was established at any of the western harbours; Valentia, for instance; what mode of transit for goods and passengers would you suggest in Ireland?—I have recently learned that parties both in America and in the manufacturing districts of England, contemplated a railroad across Ireland, from Dublin to the extremest West, as a practical plan, and likely to be attended with very profitable results. I was aware that the inhabitants of the United States had suggested such a scheme.

1812. If despatch in the intercourse between the two countries is an object, what *terminus* would you yourself recommend or suggest for a railroad communication from Valentia?—I consider, both with respect to passengers and goods, that the direction should be, as far as possible, upon the best line from America to the manufacturing districts; through Dublin, as one point, and Belfast as another, combining those objects. With respect to the case of passengers from London and the South of Europe, Waterford would be the shortest line.

1813. Would not Galway be as beneficial a western port as Valentia for that purpose?

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purpose?—I conceive that the principle of communication is to take the shortest line of sea transit, and to travel as long as possible in a proper direction by land. I feel that it would be invidious in me to institute any comparison between harbours. It is a professional question.

1814. Do you think the line by Waterford as preferable a line as by Dublin for the railway?—The distances are given in evidence, and they speak for themselves. I have already said, that as the transactions between England and America are manufacturing and commercial, the most advantageous line would be that most direct from New York and our North American Colonies to the manufacturing districts of Great Britain. Passengers, generally commercial men from nations in the South of Europe, would probably prefer the more southern line in Ireland, whilst those from the North of Europe, including all Germany, and Russia, Sweden and Denmark, would pass by Hamburgh, Liverpool and Dublin.

1815. Then you think that both lines would be desirable?—I think so.

1816. Do you not think if the line were adopted from Valentia to Waterford, that a great portion of the line from Valentia to Cahir would be common to the Dublin and Waterford lines?—Such lines might be made to coincide, but any opinion I could give upon that would be merely founded on what I have heard from engineers, who can be directly consulted by the Committee.

1817. Have you any safety harbours on the coast of Kerry?—We have natural safety harbours, but not artificial ones.

1818. Are they sufficient for the wants of the community in that respect?—By no means.

1819. Are not safety harbours a work that ought to be defrayed entirely at the public expense?—I think in that and all other cases, it is desirable to call in as much local contribution as you can at all obtain and justify.

1820. As it is the proprietors of shipping in England and elsewhere who lose at present their property from the want of safety harbours, they are as much interested, and perhaps a great deal more than other persons in these safety harbours?—Nobody is more convinced of the great importance of constructing safety harbours than I am. As Commissioners of Fisheries, we were desirous to distribute safety harbours around the coast, but the funds were so limited, that we could not do so in any effectual manner.

1821. Are there not safety harbours and anchorages to the north of Valentia, in the Shannon and Louth, the Kenmare River, Bantry Bay and Cookhaven?—The Report of the engineers under the Board of Works shows that safety harbours are very much wanted in the lower Shannon; there are several good harbours in the South and West of Ireland.

1822. Is there not a safe anchorage to the north of Valentia, in the Shannon?—There are anchorages within the Shannon, but they are considered not very safe.

1823. Is there not great distress at this moment in the county of Kerry?—There is extreme distress prevailing in a great part of the county.

1824. Is there not a great want of provisions?—Yes, from the failure of the former potatoe crop, and considerable alarm as to the damage done to the early crop this year.

1825. Are there fears of the early crops?—Yes; in several districts the population subsist merely by the importation of provisions.

1826. From whence?—Some from the county of Cork.

1827. How are the means obtained for that importation?—By private exertion.

1828. Would not then this be a favourable opportunity for the expenditure of money in public works in that part of the country?—Certainly.

1829. If private individuals were prepared to commence, and had the means of completing the railway from Valentia to Waterford, do you think there would be any occasion to advance public money to the poor for those districts?—If private individuals are able to execute the work, it is for them to consider whether they will require any aid from Government.

1830. If private individuals were prepared to construct the railway now from Valentia to Waterford, would you recommend Government to advance the money to make the railway from Valentia to Dublin?—I do not think the existence of a road from Valentia to Waterford would in any degree preclude the necessity or utility of a road from Valentia to Dublin.

1831. You have spoken of great distress at present prevailing in Kerry; how is that distress relieved?—By the importation of cargoes of potatoes from several points.

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1832. How do the peasantry in danger of starvation from failure of their own crops, become possessed of the importation of potatoes?—I can only speak for those on my own property; they must purchase them. I applied to the Board of Trade to send from the cheapest ports in Ireland some cargoes of oatmeal to the distressed districts of Kerry for sale, and it has been recommended by the Board of Trade to do so.

1833. Have they, when their own crop has failed, the means of such purchase to the extent of maintenance of themselves and families?—The persons in work have the means of purchase, but I fear that the distress reaches to many families who have not such means; very likely there are multitudes who must depend solely on charitable contributions.

1834. Is it within your knowledge that there is this distress approaching to starvation in the case of several families?—I will read a passage from a letter which I received the day before yesterday: "I believe but for sixteen pecks of potatoes which I obtained from a vessel belonging to a neighbouring town (and with great difficulty obtained), that thirty or forty families of quarrymen and labourers would have gone to bed supperless last night." There are multitudes who are able to pay who are on the verge of starvation in those districts at present.

1835. How long will they be able to pay?—The persons in my employment will continue to pay all the spring, but others will not.

1836. What are their wages per day?—The day-labourers receive from 10*d.* to 1*s.*; some inferior day-labourers, but very few, receive 8*d.*: and the contract labourers (and much the greater part is done by contract), vary from 1*s.* to 1*s.* 6*d.* and 2*s.*

1837. Are not those wages above the average wages of the country?—Considerably.

1838. Do those labourers hold a house or any land?—Some hold their houses and land from me, but the greater number under my tenants.

1839. On an average, what quantity of land do the labourers hold each?—I cannot say exactly the average; my plan is to give three acres, and the rent is 10*s.* an acre, and a good slated house for 12*s.* per annum; where they have the command of manures, the rent is higher.

1840. Suppose the Government to grant a moiety of the amount required for making a road through a wild and uncultivated district, do you think there would be any objection to give the power of raising by compulsory presentment the remaining moiety from the barony or the district benefited by the road?—I apprehend, in all cases of such works, the district improved should be taxed for payment by compulsory process.

1841. Have you ever considered the propriety of attempting the reclamation of waste lands by the establishment of Poor colonies, similar to those which exist in Holland?—I was a member of the Committee that had that object in view, and I think it is extremely desirable.

1842. Would you effect that object by empowering grand juries to take tracts of this description of land, and to raise money by presentment for the necessary buildings and the purchases, and to invest the superintendence of those establishments in a committee appointed by them, or what machinery would you suggest for conducting them?—I would not propose to tax by grand juries the land generally for the purpose; either the case is of such a public nature that it ought to be done by advance of public money, or so much connected with the improvement of private property, that it should be levied from that property.

1843. I am supposing the grand juries purchased it?—I should not wish to vest in grand juries the administration of such a power; I do not think them suited for it, and they are a fluctuating body.

1844. In what body would you vest that power?—In some authority emanating from the Board of Works.

1845. Your objection to the grand juries would not exist, if the powers of the grand jury were of a more continuous nature?—It would be diminished.

1846. Do you think that the constitution of grand juries as a public body can be re-modelled with advantage?—I consider the principal duties of grand juries to be their functions connected with the criminal law, and that they are not qualified for the execution of public works.

1847. Would you deprive them of their fiscal duties?—At present I do not think you can give them with advantage to any other body; but those fiscal duties are only an appendage to their more important trust as part of the criminal judicature of the country.

Burton Macnamara, Esq. called in; and Examined.

B. Macnamara, Esq. 29 May 1835.

1848. I BELIEVE you are a Captain in the Navy?—I am a Post Captain in the Navy.

1849. I believe you are acquainted with the western coast of Ireland?—I am.

1850. Are there sufficient safety harbours upon that coast?—Not at all.

1851. Do you mean to say that there are no safety harbours from Sligo Bay to Bantry Bay?—There are several anchorages there, but they are places I would not run in, in bad weather.

1852. Does the Shannon afford safe protection for vessels running into it?—Yes.

1853. Near its mouth?—No, not near its mouth.

1854. How high should you go up?—For a large ship, I should go as high as Catrick, which is about 20 miles from its mouth.

1855. Where would you propose building safety harbours upon that coast?—By the construction of a pier at Kilrush, and making a breakwater there; and from Kilrush I would go to Lisconnel; I think Lisconnel is the next place I would select; there are several places on the Connemara coast, of course including Galway.

1856. Do you think it would be possible to form a safety harbour in the bay of Listowel, which was capable, in a storm, of affording protection to a vessel of 500 tons burden?—I do, decidedly.

1857. Which side of the bay?—On the north side. There was a very valuable vessel from America which was wrecked the other day, which if the harbour had been there, would have been saved.

1858. There is already a small fishery pier there?—Yes.

1859. Do you consider it to be of any value?—Not the least.

1860. Would you construct the safety harbour in the neighbourhood of that pier?—I would.

1861. Would it be accessible in every wind?—Yes, it would be accessible; you would have to beat up against the wind from the eastward. The whole of the fishery piers on the coast are quite defective, and not sufficient for the purpose intended; as for instance, there is one built at Seafield, which is built on a long ledge of rocks that nobody can get near to.

1862. A petition was presented to The House some time ago, praying for the erection of a fishery pier at a place called Ballybay; do you know the spot?—I do.

1863. Do you think the erection of a pier there would be advantageous to the fishery in the harbour of Galway?—Yes, as a safety harbour.

1864. And be of advantage to the inhabitants for the export of their produce?—Decidedly.

Lunæ, 1° *die Junii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Henry Berens, Esquire, called in; and Examined.

Henry Berens, Esq. 1 June 1835.

1865. WHAT office do you hold?—At present I am a Commissioner for inquiring into the Revenue of Excise.

1866. Did you not formerly belong to the Commission for inquiring into the Irish Revenue?—I did.

1867. While acting as such commissioner, was not your attention drawn to the post-office communication?—It was to the post-office communication generally, both foreign and domestic.

1868. Was your attention drawn to any point in Ireland, as being the most proper one?—It has been certainly suggested to us, that the particular point of departure for the communication to America and to other parts of the Western world, might be improved by bringing it more in the direction of the destination of the correspondence.

1869. Was it not that they should pass through Ireland?—Ireland was suggested certainly.

1870. Was any port in Ireland particularly suggested?—The port of Valentia was

was mentioned to us as being the most westerly port, not only of Ireland, but all Europe.

1871. Were any other advantages pointed out respecting Valentia?—The principal advantage was certainly its position, with regard to its westerly situation. It was also suggested that it had peculiar advantages, from its enabling shipping to avoid all the dangers and delays arising from the navigation in the Channel, and we had evidence to show that sometimes a large proportion of the delay of the whole voyage from America was occasioned in the Channel.

1872. Might not the same advantages arise from the use of the port of Galway?—I am not sufficiently acquainted with it to be able to state that.

1873. Was your attention drawn upon that occasion to the harbour of Galway?—I do not recollect.

1874. At that time steam was not so much made use of as it is now?—No, it was not used so much as it is now.

1875. Steam being now so much more used, would make the port of Valentia much less valuable, in comparison with Galway and other ports?—Yes, the advantage by the employment of steam would make a difference in that respect.

1876. Are you now a Commissioner of Excise Inquiry?—Yes.

1877. Have you not had an opportunity of ascertaining in that capacity the great decrease in illicit distillation in Ireland?—Certainly; not only on this occasion, but upon both occasions; the commission I am in now and the former commission.

1878. Did you not also find, that there was less illicit distillation in those places where there were means of communication, and which were not shut up for want of communication by means of roads and bridges to other parts of the country?—The evidence tended to prove that illicit distillation was most successfully carried on in those situations in which the connexion with towns and markets for the sale of spirits was least accessible.

1879. Was it not visible where new lines of road were made, that illicit distillation to a great extent ceased?—We were not practically through the country in Ireland with that object, but we were in Scotland, and certainly the same thing applied to Scotland completely, and therefore, I presume, of course would apply to Ireland.

1880. That illicit distillation stopt when roads were made through the country?—Very much so.

1881. And that, in your opinion, must be the necessary consequence of making roads?—I should suppose, certainly, from all the evidence we have received.

1882. Could you furnish the Committee with any returns upon that head?—I would beg to refer the Committee to the following passages in the Examination taken by Sir Henry Parnell and myself, in Dublin, in December 1833.

7th Report of Commissioners of Excise Inquiry, part 1, page 384; Examination of Mr. Arney, Excise Collector of Lisburn.
Page 387, Examination of Mr. Halliburton, Collector of Sligo.
Page 391, Examination of Mr. Gill, Collector of Drogheda.
Page 399, 400, Examination of Mr. Wright, Collector of Foxford, D. 7th Report, part 2.
No. 1, page 60, Report of Lord Lifford.

The tendency of the whole of the evidence which we took on the subject, both in Ireland and Scotland, would lead to the same result; viz. that the practice of illicit distillation is principally carried on by the small farmers, as being the readiest means of converting their grain into money, and the practice must be necessarily checked by giving them increased means of access to legitimate markets.

1883. Have you any further suggestions to make to the Committee?—I would beg leave to add, that having formed a strong opinion (founded on the evidence received during my former commission) as to the peculiar eligibility of the Western coast of Ireland for a post-office station, that opinion has been materially confirmed from the opportunities I have had of considering the question since, not only on account of the great improvements which have taken place in all communications by steam, but more especially from the great increase of facilities in the communications between London and all parts of Ireland, which must result from the railway (for which an Act has just passed) between London and the Western counties of England; such facilities being still further extended by the railway across Ireland, which I have heard to be in contemplation, there can be no doubt that these addi-

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tional means of intercourse with the Western coast of Ireland must materially tend to strengthen the arguments to which I have already adverted, in favour both of the practicability and also of the advantages, in a national point of view, of selecting that part of the kingdom as a point for the departure and arrival of communications with the Western parts of the world, whilst at the same time the local advantages to Ireland from making this great thoroughfare pass through the whole breadth of the Island are sufficiently obvious.

Colonel *John Fox Burgoyne*, called in; and further Examined.

Col. J. F. Burgoyne.

1884. WILL you have the kindness to inform the Committee, whether, in your opinion, the difficulties raised by the Lords of the Admiralty with reference to the crossing of old Dunleary Harbour are well founded?—I have a very decided opinion, that the inconveniences that have been anticipated from allowing the extension of the railway to cross old Dunleary Harbour have been very much overrated. It would be too long in this place, and not very intelligible without the plans, to enter into the particulars of my reasons. I would wish, however, to state generally, that the advantage of public works in Ireland is so great, that I think it would be very desirable if the public departments would establish as a maxim, instead of endeavouring to obtain as much as they can from these works, on the contrary rather to seek what they can contribute towards them.

1885. Are you of opinion that the proposed extension of the railway will be of great advantage to the public, and extremely useful for commercial purposes?—I think the extension, as far as at present contemplated, would be of very great advantage to the public generally, particularly to the commercial interest and for passengers by the mails; but I am in hopes that it will ultimately be carried still further, and that it will get to the granite field near Dalkey, and be the means of establishing a traffic in the export of that material, which does not at present exist, and which can hardly be created without such further extension of the railway.

1886. Will it facilitate the commercial intercourse between Kingstown Harbour and the Grand Canal?—No doubt; it will establish an intercourse which is not to be effected otherwise.

1887. You have heard the suggestions which were made to this Committee by Mr. Pim, namely, that in undertakings of acknowledged utility, such as the extension of canals and railways, where the parties subscribe from their own funds one-third of the cost, that your Board should be authorized to grant one-third and lend one-third; be so good as to state your opinion as to that proposition to the Committee?—I should say, that assuming the propriety of public contributions towards works in Ireland to be acknowledged, that it could not be better managed than in conjunction with advances from public bodies and private individuals, inasmuch as you will then have an increased capital expended on these very useful undertakings.

1888. Do you consider it proper that the public should be called upon to grant money for the exclusive benefit of individuals, while the return goes immediately to individuals?—I think the profit to individuals of such sums as we should expend for the promotion of public works would be very small in proportion to the benefit derived by the community in general, by the increased employment which it would give to the labouring classes, an object so much wanted; and where, without such assistance, no capitalist will come forward for the execution of the work, I think Government might reasonably aid them. This is not a wholesome state of things, but it is a matter of expediency arising from the peculiar state of Ireland.

1889. Do you think it necessary, in the case of such advances by Government by way of grant, to put a maximum upon the dividends received by the company?—I think it would be reasonable to stipulate for a maximum, allowing it to afford such a fair anticipation of good profit as would induce capitalists to risk their money, such as 10 per cent.

1890. You would then leave a power to the company to relieve themselves of this limit, by repaying the sum granted, in case their profits should allow them to do so?—I would certainly; I would give every encouragement to the advancement of private capital upon public works in Ireland.

1891. Would there be any objection whatever that Government should advance one-third in case the parties did not stipulate for a benefit?—On the contrary, I think it would be a very desirable expenditure, perhaps more so than any other, to aid parties who subscribe without expecting any direct benefit from the works.

1892. When

1892. When you alluded to the parties, do you mean principally grand juries, or the proprietors of land?—The proprietors of land, yes; I should say not grand juries, because a grand jury assessment is not voluntary, it is a tax; I am alluding to a voluntary contribution.

1893. In your opinion, in cases where more than one-half of the landed proprietors were satisfied, might not the necessary contributions be levied on the whole of the landed proprietors to be so benefited?—That would come in the nature of a tax like a grand jury assessment. I do not think on such a foundation as that, they would be entitled to a free grant.

1894. Do you not think that Government would be disinclined to grant money to advance the interest of individuals?—Certainly, where the individuals do not contribute at all towards it.

1895. And even to those who subscribe, where they take a direct benefit?—Where they take a direct benefit, I think they would.

1896. Might not that objection be removed if Government lent one-third and the parties subscribed one-third, and the remaining one-third to be advanced by Government, without interest, but to be repaid after the loan made by Government was satisfied?—That might be a reasonable mode perhaps of giving Government aid for such works.

1897. In your opinion, they ought not to insist upon that; but you think the grant ought to be free?—I think, in cases of voluntary subscriptions, they might very reasonably make a free grant of an equal amount; but not in the case of any compulsory assessment or tax, or where a direct benefit was contemplated to be derived from the work; if funds could be had to an unlimited degree, you might perhaps go further; but I am supposing that the means are limited.

1898. Do you think it would be desirable that the Kingstown Railway Company should be authorized to make a survey of the proposed line of railway to Valentia?—The Kingstown Railway Company have carried on their own work so remarkably well, that I think the public would have more confidence in any undertaking under their management, than under that of any other body we know of at present.

1899. Are you aware that locomotive engines have gone at a speed of from 15 to 20 miles on common roads?—I think I have gone on one at the rate of 20 miles an hour myself on a common road.

1900. Suppose those carriages were used upon a curb-stone and granite road, and not subject to the interruption of carts and carriages, which occur upon common roads, what speed do you suppose they might be fairly worked at?—Very nearly the speed they go on rail-roads.

1901. If it could be proved that granite or curb-stone roads could be constructed at the rate of from 2,000*l.* to 3,000*l.* a mile, would you, in the present state of the country, recommend an expense of a sum of six and seven times that amount for a railway?—I do not imagine there would be that difference of expense; the levels would be the same, and the stone-work would be the same; the only difference would be the application or not of the iron railway bars.

John Patterson, Esq., called in; and Examined.

1902. ARE you resident in Ireland?—I am; in Dublin.

1903. Are you of any profession?—A Stock Broker and Agent to the Globe Insurance Company.

1904. Do you know the number of acres of arable land in Ireland?—I believe 14,000,000 of statute acres.

1905. Have you been engaged in loans or mortgages in Ireland?—I have, to a very considerable extent.

1906. What is the rate of interest?—There are very few sums lent at four-and-a-half; I think you may take five per cent. as the regular rate of interest in Ireland now.

1907. Can you state what is the general average rate of interest in England and Scotland upon loans and mortgages?—I believe from three-and-a-half to four per cent.

1908. How do you account for the difference of the higher rate of interest in England?—Because I am of opinion Englishmen are afraid of lending their money in Ireland, in consequence of the occasional disturbances, and those disturbances being very much exaggerated in the public newspapers.

 1909. What

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1909. What has been the cause of those disturbances?—I am satisfied they all proceed from want of employment for the labouring population.

1910. Do you believe, if the peasantry had sufficient employment, that there would be any disturbance or agitation whatever?—I think in every district where there is sufficient employment for the peasantry there is peace and tranquillity.

1911. How do you propose to employ the people?—I think it may be done in a variety of ways; I consider Government should set the example, by forming roads through districts at present uncultivated, thereby enabling the farmers to bring their produce to market. I particularly allude to Mayo and Kerry.

1912. Has the interest on Irish mortgages, to your knowledge, been punctually paid?—All those negociated by our house have been very punctually paid.

1913. As punctual as in England?—Perfectly so; they are generally guaranteed at the Dublin bankers, and paid there.

1914. To what extent do you propose Government should make advances for public works such as you have mentioned?—I am not prepared to say to what extent; I do not think they can go to a great extent consistently with the authority of the body through whom the money is proposed to be lent.

1915. Might not the money be safely placed at the disposal of the present Board of Works?—I cannot say that; I consider the powers of the Board of Works are so limited that they are not able to carry into operation any great measure of the kind.

1916. Do you think their powers ought to be increased?—Yes, I think they ought to be increased.

1917. In what way would you propose to increase those powers?—I think the Board in Dublin is scarcely able to appropriate money to a great extent through Ireland, and I should suggest that local boards should be appointed in each county by Government with a central board at Dublin, and that the local board should not have power to dispose of the public money till surveys or plans of the different lines, whether roads, canals, bridges or harbours, should be made; and I think that such plans and surveys should be first submitted to the grand jury of each county, and upon receiving their approval the central board in Dublin should at once issue the necessary money; and I conceive that Government would be perfectly justified in advancing money for making roads. It appears in evidence before several commissions, that in the uncultivated districts where money has been advanced for this purpose, the Excise return has produced 50 per cent. on the sum so expended where no Excise ever existed before, particularly in Galway, from whence there is a report from Mr. Nimmo on the subject.

1918. Do you think that money might be usefully laid out by Government for the advancing of public works in Ireland, without the parties seeking direct benefit?—That would depend on the mode of repayment of the money; if done by compulsory enactment, it might happen that one portion of the county might be called upon to repay the expenses, while another portion reaped the benefit of it. I think if done by way of baronial assessment it would be advisable.

1919. At what rate of interest should loans be lent?—I think they ought to be lent at four per cent.

1920. Not lower?—I think that at the present price of Exchequer bills and Consols you may take the value of money at three per cent.; and one per cent. would be required to cover the expenses of the local boards, which I speak of, as they should necessarily be men of high standing and well paid for their services.

1921. If there were not local boards, it would not be necessary that they should be at so high a rate of interest?—No, you might take ½ per cent off.

1922. Do you think there is much unemployed capital in Ireland?—I think there is a great deal; a considerable number of persons have sold out of the funds at a high price, and have kept their money in hand expecting the funds will fall; and from the Parliamentary Returns it appears that there is an immense sum in English stock transferred to Ireland, much greater than is transferred from Ireland to England.

1923. How does it happen that the capital remains so unemployed?—The number of private speculations that have been engaged in, such as the Canal Companies, and the St. Patrick Assurance Company, Mining Companies, &c. have turned out such complete failures, that the Irish public have little confidence in any plan managed by Irishmen exclusively; that does not extend to companies which are managed in London, as for instance, the Provincial Bank of Ireland, now at nearly 100 per cent. premium.

1924. How would you propose to restore that confidence, or to give confidence?—I think if some one great undertaking was achieved in Ireland, and the public saw its success, confidence would be restored.

1925. How would you propose that this great undertaking should be accomplished?—If practicable, by a private company; if impracticable, by Government.

1926. You have alluded to roads and bridges; does not Ireland stand in need also of great improvement in the internal navigation of the country?—I believe it does; I understand that the navigation of the Shannon requires very considerable improvement.

1927. How would you propose the Shannon to be improved?—I think it should be partly done by Government as a national work, but that a certain proportion of the expense should be defrayed by the landed proprietors in its vicinity, by the Internal Steam Navigation Company, and by all other parties who would receive benefit from the improvement.

1928. How are the Government roads, as they are technically called, repaired at present?—By the Board of Works.

1929. Have you any other suggestions to make to the Committee?—I am not aware, except connected with the company for forming tramroads in Ireland.

1930. I think you said you were a stockbroker?—Yes.

1931. How many are there in Dublin?—Fifteen firms altogether.

1932. Are they made stockbrokers in Dublin in the same manner as they are in London?—No, they are quite distinct; they are more select in Dublin than they are in London. The rule in Dublin is, that you have to serve an apprenticeship, and you are ballotted for afterwards.

1933. Then it is a sort of close corporation?—By no means; it is done in order to guard the public from those failures that take place upon the London Stock Exchange.

1934. Supposing a respectable person should be desirous to set up in this line of business; would he be prevented if he was excluded by the ballot?—I know that there is not an instance on record of a man who has served an apprenticeship as a stockbroker ever having been rejected.

1935. How long have you been agent to the Globe Insurance Company?—My father has been agent to the Globe Insurance Company thirty years, and I have been in the office for the last fourteen years.

1936. What extent of business has your company done in Ireland?—We have done business to a great extent; more than any other insurance company in Ireland of the same standing.

1937. Are you much in communication with persons residing in distant districts in Ireland?—We are, as all other stockbrokers are; our number being so few, we are in constant communication with every part of Ireland.

1938. What amount of Exchequer bills do you think the Dublin market would bear in circulation?—I do not think it could bear them to any extent: you could not dispose of more than from 3,000*l.* to 5,000*l.* a day, if so many; Exchequer bills are very little used in Dublin.

1939. Would Exchequer bills issued upon the same terms as here at $1\frac{1}{2}d.$ a day be negociated in Ireland except on a discount?—I do not think they would; the business done on the Stock Exchange at Dublin is so limited, that if money were wanted in a hurry it would be difficult to dispose of Exchequer bills.

1940. Have you been concerned for any English Railway Company?—Yes; for the London and Birmingham.

1941. Have many shares been taken in Ireland?—At the time the company was formed, 500 shares were allotted to Ireland, and they were taken at once.

1942. Have they been in the market since, or have they been held?—They are entirely held by the proprietors who originally took them, and there is an increased anxiety for purchasing more.

1943. Have you any communication to make to the Committee with reference to the formation of tramroads between Waterford and Valentia?—I am concerned for a company formed for the purpose of making tramroads somewhat similar to the Commercial Road in London, from Valentia, or whatever port in the West of Ireland engineers may recommend to Waterford; our company is completed, and we shall be ready to commence operations almost immediately; our engineer has given in this return, which, with the permission of the Committee, I will read.

"Sir,—Agreeably to your request, I have examined the maps of the country between Waterford and Valentia, from which and my knowledge of works in Ireland, I have no hesitation in saying, that a line of road may be formed between these sea-ports, over which locomotive

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locomotive carriages and carts drawn by horses may be employed with the greatest advantage to the country.

"The locomotive carriages will probably travel with passengers at a velocity of 15 to 16 miles an hour, and one horse will be enabled to draw goods, merchandise or farm produce, amounting to four tons, at a velocity of about three miles an hour.

"Such roads will probably be found more advantageous and generally useful in the present state of Ireland than long lines of railroad, as they can be made at one-fourth of the expense of railways, are not easily injured by ill-disposed persons, and can be entirely executed by the labourers of the country.

"On railroads the carrying department must be in the hands of the company constructing the work, as it will be impracticable to run engines belonging to private individuals without every danger of collision.

"The description of road I propose would hold a medium place between railroads and turnpike roads; a considerable velocity might be attained for the passenger trade, and every farmer and landed proprietor might take advantage of it by using their own carts and horses. The company would run the locomotive carriages, and take toll for all carts drawn by horses; the road might be so constructed that no delay or interference could take place in travelling of each description of carriage.

"The expense of a road of this description would not exceed 3,000*l.* per mile in Ireland, supposing the land necessary to be purchased not to exceed 30*l.* per acre.

"Taking the distance from Waterford to Valentia to be 140 miles, the expense of such a road would be about

	£.
30 stations at 100*l.* each	420,000
14 toll-houses, gates, &c. at 50*l.*	3,000
60 locomotive engines at 700*l.*	700
Contingencies	42,000
	42,000
£.	507,700

"I am, Sir, your most obedient,

"*John Macneill*, 2 Parliament-street,

"To John Patterson, Esq., Morley's Hotel. 29th May, 1835."

1944. Has the capital for that company been actually subscribed?—I cannot say it is paid, but it is ready to be paid when the minor details are completed; our shares are all subscribed for to the amount of one million. We have had locomotive engines built and tried here, capable of carrying 30 passengers each; on an ordinary road they have exceeded in speed 18 miles an hour, and on a road where there is an inclination of one in fifteen, they have gone at the rate of eight to ten miles, and it is known from experience that an inclined plane of one in ninety is almost impossible for a locomotive carriage to surmount on a railway; and in the present Session the Western Railway Bill was very nearly thrown out because there was a rise of 1 in 207, whereas on an elevation of one in forty we should be perfectly able to accomplish our object, because we carry a less weight.

1945. Is it Irish capital subscribed?—It is subscribed in London, Dublin and Bristol.

1946. What proportion in Dublin?—Not a very great amount; it is chiefly in London and Bristol.

1947. Have these locomotive engines generally succeeded on the common roads?—The engines I have been speaking of were built by Messrs. Field & Maudesley and Mr. Hancock, and I have been out with them 12 times in various parts of London and its environs; what I have mentioned was then performed.

1948. To what cause do you attribute the circumstance, that the experiment has been made for some years, and never has been carried into practical use?—The persons who have hitherto built the engines have been gentlemen mechanics, and the engineers I speak of who built these particular engines are ready to enter into a contract with us to keep the engines in perfect repair for 1*s.* a mile, and they are ready to be examined on that point.

1949. Would your company, if formed, expect to receive any loan from the Board of Works?—We do not intend to apply for any, but if Government proposed the granting of a large sum for private works, we should ask for it as well as others; we have no intention now of applying for it; we do not require it; we propose to establish this line of tramroad in connexion with the other part of our plan of opening a steam communication between the Western hemisphere and the Western part of Ireland.

1950. Is any considerable part of the capital subscribed at Waterford?—We have reserved a certain number of shares for Waterford, Limerick and Cork, and we have established local boards in those towns; in all those cities the plan has been adopted with the greatest avidity.

John

John Darcy, Esq., called in; and Examined.

1 June 1835.

1951. I BELIEVE you reside at Clifden?—I do.

1952. Are you proprietor of that town?—I am.

1953. It was built by yourself?—Yes; it was built within the last 20 years.

1954. Is it not on the sea coast?—It is on the Bay of Ardbear, in the county of Galway.

1955. Have you a harbour there?—A very fine harbour; one of the best on the Western coast of Ireland.

1956. Have you a dock or quay there?—The late Mr. Nimmo, when conducting the Government works, commenced a quay, which he left in an unfinished state, to the great injury of the town and surrounding country, as it is the only place from which corn and fish is exported, and to which salt, iron, pitch, tar, hemp, timber, tea, sugar and manufactured goods are imported for that district; the finishing of that quay would be of great importance, as would the removing a few rocks and making a light on the Caragrone Rock.

1957. Is the harbour sufficient for a vessel of tonnage?—It is sufficient for the largest vessel.

1958. What is the nature of the land about the town of Clifden?—It is a mountainous country, but very improvable.

1959. Have you improved much land about the town of Clifden?—For the last 20 years I have resided in that country, and employed my entire time in the improvement of the waste lands in the neighbourhood.

1960. What is the cost per acre of such improvements?—I cannot exactly say; in the first instance, I had a great many difficulties to surmount in consequence of the want of roads and the want of a market for the produce, and I had to expend a large sum of money in the establishment of a town. I should think that lands in that part of the country could now be reclaimed for about 4*l.* an acre upon an average, and in some places less; that is, prepared for manuring and putting down the crop.

1961. What would be the annual value per acre of the land when reclaimed?—I should think the fair rent of it would be from 10*s.* to 15*s.* per acre, according to the convenience of manure.

1962. What was its previous value before its reclamation?—A great part of the lands in that country are of scarcely any value; in some places not more than 1*s.* an acre.

1963. What isthe soil?—It is a boggy soil from three to four feet deep.

1964. What is the sub-soil?—It is a sandy gravelly clay.

1965. Any granite?—Some parts are granite and other parts are clay.

1966. Through the means of the sea-sand, the peasantry, who pay 15*s.* an acre, are enabled to procure such a crop as remunerates them for their labour?—Yes.

1967. Have you any idea of what its elevation is above the sea?—The very steep mountains are not reclaimable; but there is a vast tract of reclaimable land that is not more than 100 feet above the level of the sea.

1968. Are there not in the county of Galway 200,000 acres of that description of land, and in a state almost waste at this moment?—To the west of Galway there are more than 200,000 acres of land lying in that state.

1969. How many have you of your own?—Several thousand.

1970. How many are there in the neighbourhood immediately adjoining your estate?—The entire of the reclaimable district I alluded to is in the neighbourhood, and adjoins my estate.

1971. With reference to almost every part of that tract of land, do the facilities with respect to sea manure and lime exist?—The country is so indented by the sea, that the remotest part is not more than six miles from it. If therefore there were roads, the facilities would exist to every part.

1972. Have not Government made a considerable length of road in that district?—They have commenced several, none of which are as yet complete.

1973. Have not those roads remained for several years with one part finished and the other utterly impassable?—They have.

1974. How long have they been left in that state?—They commenced in the year 1822, and are yet unfinished.

1975. Then there is but one passable?—Not throughout.

1976. Has not the improvement in that part of the country been very great?—Yes, the improvement of that country has been very great within the last ten or

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twelve years; for instance, where you could scarcely get a stone of oats in 1822, from the quantity of waste land brought into cultivation, there was exported from the town of Clifden this year 800 tons to London and Liverpool.

1977. To what do you attribute the increase of cultivation?—Partly to the building of the town, and partly to the outlay of money on the roads, and the facilities afforded by them even in their imperfect state.

1978. Were oats grown in that country before?—Very little corn was grown in that country prior to the building of the town, there being no market for it.

1979. Do you think it would be desirable that the proprietors of that district, in common with the proprietors similarly circumstanced, should have the power, under proper checks, of charging their estates with a certain proportion of the money which is laid out in reclaiming and improving the districts?—I think they should have a power of charging the reclaimed land with the money expended in improving it.

1980. What difficulties do you find now chiefly obstruct the reclamation of this very large tract of land?—I think there are two difficulties: in the first place, the proprietors have not capital to expend upon it themselves, and, in the next place, a difficulty exists in making leases of these improvable tracts, in consequence of the state of the law.

1981. Has any mode occurred to you, by which the rights of the creditors could be fairly protected and guaranteed, and at the same time the proprietors would be at liberty to make that arrangement with respect to their estates, which would lead to their ultimate reclamation and improvement?—In the first place, where I am certain the expenditure of capital would raise the value of the land so considerably, I think it would be beneficial to the creditor and to the remainder-man that the waste lands should be reclaimed. If the Government would advance a sum of money to be expended under the direction of the Board of Works, the interest of which to be the first charge on the lands so reclaimed, landlords would take advantage of it and give employment to numbers now in need of it, and the creditor would have the same remedy against the improved land he has now against the waste.

1982. Do you attribute the great increase in the improvement of agriculture in your immediate neighbourhood to the making of roads?—Partly to the making of roads, and partly to the building of the town, which created a market.

1983. You have said there are about 200,000 acres in Connemara capable of being reclaimed, and being made worth at least 10*s.* an acre?—I consider there are.

1984. What amount expended in roads would give a return of 100,000*l.* a year?—I do not mean to say that roads alone would do it, unless capital was expended in draining and improving the land, though without roads the land could not be improved.

1985. What amount of money laid out in roads in that district would enable the proprietors and tenants to make these improvements?—I should say at least 20,000*l.*, in that immediate district; I cannot exactly say.

1986. And at present you think there are no parties who have the power of laying out that 20,000*l.* which is neccessary?—I am sure there are not.

1987. Would they not cheerfully contribute one-half of the expenditure, or are they incapable of doing even that?—I think it would be unreasonable to require it.

1988. Would not the tenants themselves be very happy to contribute?—The tenants are very few in proportion to the great extent of land; these improvable districts are not, at present, tenanted at all.

1989. Is not the population of those districts extremely small?—It is thick immediately on the sea coast, but the interior is without any population.

1990. In reference to the area of the district, it is small?—It is very small: a mile from the sea in some places there is no population.

1991. If the land was in a state of reclamation it would give employment and subsistence to many thousands more than at present inhabit it?—It would, and relieve hundreds of distressed families who went into that country from different parts of Ireland in expectation of being employed on the public works, and who are at this moment in a state of starvation in consequence of the failure of the potatoe crop last season.

1992. And relieve those parts of the kingdom in which there is a surplus population?—It would relieve those parts of the kingdom to a very considerable extent.

1993. You spoke of the Connemara district; I understood you to state, that the proprietors

proprietors have so mortgaged or encumbered the ground with debt that they could not raise 20,000*l.* easily?—I did not say the proprietors had so encumbered the land; they could not; but it would be unreasonable to require them to lay out so large a sum on public roads where they would not be exclusively benefited by them.

1994. Do you think it would be of advantage to the country that the sum of 20,000*l.* should be advanced there, when it would be merely for the private advantage of four or five people?—I consider it would be for the benefit of the public at large to bring 200,000 acres of unprofitable land into cultivation, thereby affording employment for thousands of destitute poor; it would also tend considerably to the increase of the revenue; that part of the country did not produce 1*s.* to the revenue 20 years ago, and the revenue of the town of Clifden alone is at this moment 7,000*l.* a year; in the year 1828 it was represented by Mr. Nimmo in his Report to Parliament as 5,000*l.*; it has been raised since to upwards of 7,000*l.*

1995. It has been suggested to the Committee that where Government are called upon to make grants for roads through wild districts, such as Connemara, the proprietors might be fairly called upon to give up to the Crown a certain proportion of acres of land; would the proprietors of the Connemara district, in consideration of any grants of public money for the purpose of making roads, which would tend to the improvement of their estates, be willing to give up any portion of their estates?—I would.

1996. Would you consider that to be fair?—Yes; I cannot speak for other proprietors, but I would contribute a portion.

1997. If there was a main line of road made through the district, would the proprietors be able to make roads that would join it so as to be useful?—I think if the main lines were completed, the inhabitants of the barony would make some private roads, by getting a loan of money, and paying the interest and principal by small instalments. The principal roads they are unable to make.

1998. Do you suppose that the 20,000*l.* should be for the purpose of making a main line of road or roads from farm to farm?—I mean that it should be for making the principal lines of road.

1999. Can you suggest any principal lines of road which you would recommend to be made?—In addition to some of those laid out by Mr. Nimmo, I think a road along the coast from Clifden to Clegan Bay, a distance of about 10 miles, of the first importance, both as to the improvement of the country and the convenience of the fishery. There is also a road much wanted from Renvile by the coast to the Killery Bay. A presentation was granted about a year ago for making a new line of road from Clifden to Sline Head and Bunown Bay, in expectation of getting a moiety from the Board of Works; no progress has been yet made in executing this road. I commenced a road from Balleneboy to Lethrobe some years ago, which would afford great advantages to that district, and which has not been executed.

2000. Is there not a new road there already?—There is a road in progress from Clifden to Westport, but it leaves a large portion of the country that it does not touch; I also think the opening of that country would have another advantage in the encouragement of the fisheries on that coast, which would tend to employ a great number of people.

2001. In what way do you think the fisheries on that coast would be fostered and increased by an Act of the Legislature?—I cannot well say, but I think they never will be properly attended to but by a company; the establishment of a company is the only way it can ever be done; the coast is so wild, and the fishing banks are so far to sea, that it requires vessels of a good size to fish upon it.

2002. Is there a very great quantity of fish upon that shore?—A very great quantity, and very often vessels from the Skerries near Dublin, and from other places, come to fish there. But the people of the country have such small boats that they are able to derive but very little advantage from it.

2003. Do you find that English capitalists are informed of what great resources at present exist in the way of fisheries, from which as yet the public has derived little benefit?—There have not been lately any exertions made to acquaint them of it, but some years ago a company was spoken of, and I understood at that time a number of persons were ready to take shares in it.

2004. Would you think it desirable that a commission should be appointed for the purpose of inquiring into the whole establishment of the fisheries and the fishery law?—I do indeed; I do not know any thing of more consequence to Ireland than the encouragement of the fisheries on the coast; from my own knowledge of the fishing bank off the western coast of Galway, I can confidently state, that capital

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could not be more advantageously employed, and the result of a commission would be to satisfy the Government and public of that fact.

2005. Are not a considerable number already employed in that district in the fisheries?—They are occasionally employed, but being farmers as well as fishermen, nothing is properly attended to.

2006. What sort of boats are they?—The boats for the herring fishery are not above 15 or 16 feet keel, and there are a very few small sailing boats of about four or five tons.

2007. Do they cure any fish for export?—They do, a quantity of herrings.

2008. For fresh fish, is not Galway the only market?—Galway, Clifden and West Port.

2009. Is there not a fishing bank not far from the coast of Connemara?—There are considerable fishing banks about ten leagues to the west of Sline Head and Achil Head.

2010. Are the fishermen with their boats able to reach that bank?—Very seldom.

2011. Has any capital been subscribed for forming an establishment for carrying on the fishery along the coast?—No.

2012. To what circumstance do you attribute the capital not having taken that direction?—The country and the capabilities have been heretofore unknown; except that, I do not know any other.

2013. When you first went to reside in that country, how many houses were there in the village of Clifden?—Only one.

2014. How many are there now?—Upwards of 300.

2015. How many years ago is it since you went there?—Twenty years ago, in the year 1815.

2016. Was there any revenue receivable from Clifden or its neighbourhood at that time?—Not a shilling.

2017. Can you state the amount of revenue received last year?—Upwards of 7,000*l.*

2018. Does illicit distillation still prevail in Connemara?—It does not; there is a party of revenue police who are very active to prevent it.

2019. Are they sufficient to put it down?—They are.

2020. Previous to the formation of roads, was there much illicit distillation at Connemara?—There was a great deal.

2021. If the country was more open by roads, would it be necessary to keep up so large a police for the purpose of suppressing illicit distillation?—It would not.

2022. Can you state to the Committee the expense of the police force?—I cannot.

2023. Have you any suggestions to make to the Committee respecting the improvement of that part of the country?—I should recommend that a sufficient number of civil engineers should be employed by the present Board of Works in Ireland, to enable them to superintend the making of the principal roads through the waste districts, to finish the quays and piers already begun, and to construct such others as are necessary for the encouragement of the fisheries on the western coast, the expense of which to be paid by a Parliamentary grant; and I would recommend, that the Board should have the power of advancing money to proprietors for the purpose of reclaiming waste lands, making roads, working quarries, on the security of the improved lands; these works to be laid out and executed under their direction. I would also place the county surveyors under the control and direction of the Board of Works; allowing any advance of money to be secured on the land as the first charge.

2024. Suppose a land company were formed, with the power to purchase wild districts, under the provision that the purchase money should be applied to the trusts of the estate under settlement, or the discharge of incumbrances; do you think the proprietors of that district would be willing to lease for ever or to sell to such a company any considerable tract of land?—I really do not think they would, to any great extent.

2025. To the extent of 10,000 acres?—I think 1,000 acres would be hardly worth a company's undertaking.

2026. Would it be of great advantage to Connemara that a company possessing capital should purchase considerable tracts of land?—It would be of great advantage to the country in general, and every proprietor in it, that money should be expended in improving any part of it.

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2027. You talk of expending 4*l.* an acre upon the improvement of land; in what state would that leave it?—It would leave it fit for manuring and sowing a crop in it.

2028. And in cultivation afterwards, would it require a greater outlay than in common farming?—I think not.

2029. Would that 4*l.* cover the expenditure for manure upon the land?—It would not manure it.

2030. Are you aware that in the county of Clare, the same estates which adjoin the sea, under entirely the same circumstances as the great part of the district of which you have spoken, the rent of from 30*s.* to two guineas an acre is paid by the tenantry, in consequence of the great benefit found to arise from manuring the land by sea sand?—I am aware of it.

2031. Is not a crop of oats in Connemara highly valuable?—Yes, they are very fine oats.

2032. Does it bear a high price in the London market?—I have been told by a merchant who has got a cargo from Clifden, that it bore a higher price than any other oats in the London market.

Pierce Mahony, Esq. called in; and further Examined.

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2033. HAVE you any thing to suggest to the Committee respecting the power of leasing which might be advantageously given to the landlords of Ireland?—I have been present while Mr. Darcy has been under examination; and having professional knowledge of Mr. Darcy's case, as well as that of Mr. Martin of Galway, I think it right to state, that the legal difficulties referred to by Mr. Darcy prevented the expenditure of a large sum of money in the working the quarries of those gentlemen in Connemara. The Hibernian Mining Company would have worked them ever since 1825, but that I could not report a safe and perfectly safe title, freed from incumbrances, had been made out. This defect arose from settlements and incumbrances riding over the entire estates. The suggestion I should make, with a view to remedy such defects, is, that the creditor or remainder-man should only be entitled to the rent or royalty reserved by the landlord, and should not have the power of disturbing the possession of the tenant; and the same rule might apply to all leases made at the full improved value; and thus security would be afforded to the tenant for the capital which he may expend in the improvement of the estate, and that too without detriment to the creditor or to the inheritor. The effect of my proposition would be, to give the tenant who originally contracted to pay the full value of the lands or royalties leased to him, a quiet possession as against incumbrancers and remainder-men to the extent of the increased value of the property arising from his (the tenant's) capital and skill. The creditor's right to recover the rent reserved from the tenant would still remain, but the possession of the tenant so long as he pays the reserved rent would be protected.

2034. Is not your plan equivalent to giving a power to the landlord to lease without the privity or consent of the incumbrancer?—Yes, it may have that effect; but if the incumbrancer will not look after the estate and go into possession of it, and that he leaves the management to his creditor, his latent rights ought not to impede the due management of the estate. I propose to give the proprietor or the creditor in possession power to lease at the most improved rent which could be had, but without receiving any pecuniary premium or fine.

2035. How would you guard such leasing power against the possibility of the proprietor's taking fines?—In the same way as the remainder-men are now protected against the acts of the tenant for life under the ordinary leasing power, which is given on the express condition that the leases shall be made without fines at the most improved rent and for a limited period; the question then becomes a jury question, and so it would be in the case of incumbrancers.

2036. Is it not a violation of the contract between mortgagor and mortgagee?—Literally speaking it may be so, but it is not so in reality; the mortgagee has the legal estate vested in him, and the right of the mortgagor is but an equitable one upon payment of the incumbrance. I do not consider that the adoption of the suggestion I make could in 999 cases out of 1,000 affect the real and substantial interests of the creditor. I make the suggestion with a view to increase the prosperity of the country generally, and the consequent increase of security to the creditor, by removing legal impediments which now prevent tenants improving their

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lands or working mines and quarries. I know the difficulties, and therefore desire to secure the tenant's possession; if that be done, many adventures will be made which are now checked by the very possibility of the tenant's possession being disturbed. Capitalists will not be satisfied with mere possession; they must be secured against every possible risk of disturbance before they can be induced to risk their capital.

2037. Has any thing been done with respect to the *custodiam* process which is complained of in Ireland?— Neither that or many other recommendations made by the Law Commissioners have been attended to. The *custodiam* process is a great evil; the successive Governments from 1823 have promised that it should be remedied; they have also promised that the office of sheriff should be regulated; but notwithstanding those promises, these defects of our legal system, besides many others, such as the Bankrupt Law, &c. remain unattended to.

2038. Does emigration to any extent take place from Ireland to America at this moment?—To a considerable extent; but the disastrous losses from the ports of Limerick and Cork within the last two years have materially checked the tide of emigration.

2039. Do you think emigration beneficial?—Most certainly; and if we are to have some modified provision for the poor in Ireland, unaccompanied by emigration and public works to a considerable extent, we shall find any poor law system, no matter how modified in degree, a most intolerable burden, instead of being, as I hope it will become, a blessing to Ireland.

2040. Have you any thing else to suggest to the Committee?—With regard to emigration, I should wish to state, that there is at present a plan before the Government for the formation of a society to aid emigration from Ireland; it was submitted to-day to Lord Glenelg, by a deputation headed by Lord Fitzwilliam and others, and a Bill is now before the House of Commons to carry it into effect.

2041. Does distress prevail in many parts of Ireland at this moment?—From letters which I have received from Ireland, and other letters which I have seen, it appears that there is very great distress; there is almost a famine in parts of the counties of Kerry, Mayo, Galway and Cork; even on the Crown lands in the county of Cork, I find, by letters I have seen, that it is scarcely possible (even with abundant means in money) to get provisions for the labourers on that estate; and at Killarney, the price of potatoes is 6*d.* per stone, which we consider to be a famine price.

2042. When potatoes are at 6*d.* per stone, are not the Irish people generally compelled to live on one meal a day?—They must: if you take the average wages for the whole year, we find that the labourer does not get more than 5*d.* a day to support himself and his family; consequently, if the price of potatoes is 6*d.* a stone, it becomes a famine price.

2043. Has he on many occasions to let his strip of land, which yields him a quantity of provisions, at a rate somewhat less than to purchase in the market?—That condition depends upon the season; if the potatoe crop is a failure, he loses the advantage he hoped for from his garden supply.

2044. Do you think the working classes are as well fed now as they were ten years ago?—Generally speaking, far better.

2045. Does not Ireland export more pigs and cattle and grain than she formerly did?—Certainly; and more are produced in consequence of the increased facilities for their export.

2046. Has not the agriculture of Ireland greatly increased within the last ten or fifteen years?—Certainly.

2047. Have not extensive tracts of country been cultivated which were formerly waste?—Certainly. I visited the districts through which the Wellesley and Anglesey roads have been made last September; I had not seen that district from the time they were commenced, and I was astonished at the increased quantity of land taken into cultivation since their formation. If I had entertained any doubt before as to the propriety of opening roads in such districts, my visit to the South of Ireland last September would have completely removed them.

2048. You think the neighbourhood of the Wellesley and Anglesey roads presents an astonishing contrast with the present situation of Connemara, as described by Mr. Darcy?—Certainly.

2049. If there were lines of road through that uncultivated tract of country at Connemara, do you not think that the condition of Connemara would be different

to

to what it is at present?—Certainly, the more we open those districts by roads, canals and railways, the greater will be the sum of general wealth in Ireland.

2050. I believe you are the solicitor to the Kingstown Railway Company?—Yes; I have been so from its commencement.

2051. Has your attention been at all called to the beneficial effects that might arise from railroads in general in Ireland?—From almost the commencement of that work, it has been the conviction of those who took the lead in it, that so soon as the Kingstown Railway had proved a successful project, it would lead to the general extension of the railway system through Ireland; and more than two years since, at a meeting of several gentlemen interested in that project, which was held at my chambers in Trafalgar-square, for the purpose of deciding on the best principle on which the extension should proceed, it was agreed, that so soon as the Kingstown railway fulfilled our expectations, that arrangements should be made for its extension from Dublin, towards the South and West of Ireland, by a great trunk or arterial line, having for its object a general system of accommodation to the district through which it passed, without peculiar regard to the several towns, as we considered it a matter of certainty that those towns would take their respective branch roads towards such a trunk line to the capital and the sea coast.

When the Kingstown railway had proved a successful work, it was determined to make a survey of such a new line, and Mr. Cubitt was spoken to on the subject. He then suggested that we ought to bear in mind some ultimate *terminus*, with a view to command the greatest amount of national interest and advantage, and that *terminus* he recommended should be the harbour of Valentia, as the best and most western in Europe. I give in now to the Committee, the first sketch of the Plan which he furnished to me. I also hand in a Chart of that harbour, which proves its advantages above all other harbours on that coast.

PLAN for the Amelioration of the South and South-west of *Ireland*, and for the Improvement of the Communication between *London* and *America*, the *West Indies*, the *Mediterranean*, &c.

THE best mode of improving the South and South-west of Ireland, and bringing it into more intimate connexion with England, would be by making the most perfect line of railroad possible from Kingstown Harbour to Valentia, making the latter the out-port and post-office packet station for the Canadas, the United States, West Indies, Spain, Portugal and the Mediterranean; thus getting entirely clear of the chops of the Channel, and all delays and difficulties attendant thereupon, and bringing the most south-western point of the United Kingdom within 50 hours' distance from London in all seasons *viâ* Holyhead and Kingstown, as the shortest sea passage, or *viâ* Liverpool for those who may prefer that route.

That such railway should be carried in such direction as would make it the most perfect as a main trunk line, without particular regard to the towns or places in its route, which could all branch in as circumstances might require, and which would most probably comprehend all the principal towns in the counties of Cork, Kerry, Limerick, Tipperary, Kilkenny, Queen's, Carlow and Kildare, and thus bring a district nearly 200 miles long and from 40 to 50 miles wide into direct communication with the capitals of Dublin and London, and all parts of the North of England.

If a plan of this kind could be carried into effect, it would more conduce to the benefit of every class of inhabitants of the district through which it passes, and be of more utility to the public service as regards the transmission of troops and despatches to and from foreign countries, than it is presumed any other at the same probable cost could possibly effect, and is therefore well deserving of the serious attention of every well-wisher to Ireland.

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I understand Mr. Pim has given in to the Committee the Resolutions agreed to within this month by the directors of the Dublin and Kingstown Railway, and under which it is intended to prosecute that inquiry; and finding so many concurrent testimonies in favour of the line to Valentia, there is no doubt that almost immediately Mr. Cubitt will be instructed to make a survey, and should that line be ultimately found the best for the South of Ireland generally, I expect that it will be adopted, and I know of no place which embodies within itself so many national objects, or so calculated to promote the general interests of the Empire. It has not been taken up hastily, nor will it be followed without giving it due deliberation. The Resolutions I allude to are of the 15th May. But this project is not confined to my immediate circle; it has been discussed in America last December, and the identical plan is laid down in a pamphlet by Mr. Cobden, of Manchester, lately

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published by Messrs. Ridgway & Sons, of London, and entitled "England, Ireland and America." I beg to read the following extract:

We will here introduce a scheme to the notice of our readers, which, whilst we gladly acknowledge with gratitude the source from whence it originated, we think deserves the notice of our Government.

In the New York Courier and Enquirer Newspaper of December 24th, 1834, appeared a letter, headed, "Traverse Atlantic," which, after stating that the writer, on a recent visit to Europe, had suffered a delay of ten days in ascending the French Channel from Finisterre to Havre, and of eight days in descending the Irish Channel from Liverpool to Cape Clear, says, he "believes that, on an average, one-third or one-fourth of the time is wasted upon every Transatlantic voyage, in getting into or out of the European ports now resorted to." The writer then proceeds as follows:

"The commerce of America chiefly centres in the ports of Hamburgh, Havre, London and Liverpool. Each of these is distant from the ocean and difficult of access. On the western coast of Ireland there are several harbours far superior in every requisite. As, for instance, the island of Valentia, which is the nearest point of land in Europe to America. Between it and the main reposes an excellent receptacle for shipping of any burthen, approached by two easily practicable inlets, completely land-locked, capacious and safe. Situated immediately on the brim of the Atlantic, a perfectly straight line can be drawn from this harbour to the port of New York, the intervening transit unobstructed by islands, rocks or shoals. The distance, being less than 2,700 miles, may be traversed by steam in about eight days; and the well-known enterprise of the American merchants renders it unnecessary for me to do more than to intimate, that they will avail themselves of every opening or inducement that may arise to establish the first link of intercourse by a line of packet boats.

* * * * * *

"The extent of this undertaking has been stated as beyond the means of those likely to engage in it. This seems to me incredible, when I advert to the facts, that Ireland has a population of eight millions; multitudes of them are in beggary for want of work, with wages at from 4*d.* to 1 *s.* a day, and money, on the average, not worth more than three per cent., and recollect at the same time, that the state of South Carolina, one of the smallest in the American confederation, with a population of 300,000, wages at 5*s.* sterling a day, and capital at seven per cent. interest, has, unaided and by private enterprise, constructed a railroad from Charlestown to Augusta, 145 miles in extent, at present the longest in the world, which is travelled with locomotive engines in the course of ten hours.

"The advantages to accrue to Ireland in particular, by thus opening a regular communication from New York to London in 12, and to Paris in 15 days, are incalculable. That island would become, of necessity, the thoroughfare between the two hemispheres; and the occupation of the public mind in such an enterprise, and the constantly increasing fruits of its progress, would do more to pacify the fearful dissensions of the people and ameliorate their most lamentable condition, than any legislation of even the best disposed Parliament."

The above project which, in the affluence of their enterprise, our American friends have suggested for the benefit of Ireland, merits the attention of the landowners and patriots concerned for the welfare of her people.

It has long been decided, by the merchants and nautical men engaged in the intercourse between Liverpool and America, that steam boats* would be found capable of navigating the Atlantic with perfect safety, and the more sanguine amongst those interested in increasing the facilities of communication with the two countries, have gone so far as to predict, that in a dozen years' time we may hope to witness the arrival and departure of steamers twice a week between England and the United States.

* June 1819, a steam ship crossed the Atlantic from Savannah to Liverpool.

As any scheme of this nature must necessarily require that the vessels take their departure from the nearest points of approximation of the two hemispheres, Ireland would thus become the starting place for all Europe; and it is scarcely possible to conceive any thing that would be more calculated to enrich and civilize that country, than by thus irrigating it, as it were, with the constant tide of emigration to and from America.

A railway for the purpose here alluded to would pass through the centres of Leinster and Munster, intersecting the counties of Kildare, Queen's County, Tipperary, Kilkenny, Limerick, Cork and Kerry, and would pass within 20 miles of the port of Limerick, and 30 miles from that of Cork, to both of which cities it might reasonably be expected that branches would be carried by public subscription; thus not only would these two great commercial havens be connected with Dublin, but, by opening a direct communication with each other, it would afford a medium for traffic by steam, between the 15 counties that are washed by that noble stream the Shannon and the ports of Cork and Bristol, and ultimately, by means of the Great Western Railway, with London.

Railroads are already begun for connecting Liverpool with Southampton by way of Birmingham and London. The French have long been engaged in making surveys for a railway from Havre by way of Rouen (the Manchester of France) to Paris, and although characteristic delays may arise to retard the completion of this as of other projects of more usefulness with that fanciful people, yet as it is perhaps the only line in all France that would prove a remunerating speculation, there can be no doubt that it will be the first that is undertaken in that country.

Presuming this to be effected, then, by means of such a plan as is here recommended, for constructing a line from Dublin to the extreme point of Munster, a traveller would be enabled to transport himself from the French metropolis, *viâ* Havre, Southampton, London, Liverpool

Liverpool and Dublin to Valentia Island, or any other point of embarkation, on that coast, in about 60 hours, and as the voyage to New York would be accomplished in about 11 or 12 days, the whole distance from Paris to America, which now upon an average occupies 40 days in the passage, would be accomplished by the agency of steam in about a third of that time.

That such a project, if completed, would secure the preference of voyagers to all parts of North America, not only from Britain, but from every quarter of Europe, must be apparent. That all we have recommended is perfectly practicable, we have no difficulty in believing; and that a traffic of such magnitude as is here contemplated, would have the effect of imparting wealth and civilization to the country through which it passed, all experience proves to be unquestionable.

But it is not merely the future benefit that must accrue to Ireland from the construction of a railroad through her provinces, that we should alone regard. The present support of her unemployed peasantry is another cogent motive for some such undertakings, for unless a diversion of the surplus labour from the land be effected, through the employment of English capital amongst its population, no change can be attempted in the agricultural economy of Ireland. There is not absolutely, in the present densely crowded state of her rural inhabitants, elbow room, so to speak, sufficient for re-adjusting their position. Yet there are reforms indispensably requisite to the agricultural prosperity of the island. The farming implements of its people are, for example, notoriously inferior, requiring twice the labour both of men and cattle, of our own; yet how shall we hope to see any improvements effected in these, by which the demand for labour shall be temporarily diminished, whilst one-half of the peasantry is perishing for want of work.

And again I find, that in 1833, a steam-packet intercourse from Valentia to America was recommended by Mr. M'Gregor, in his work on British America, vol. ii. page 561. He writes thus:—

CHAP. III.—REMARKS on INTERCOLONIAL and TRANSATLANTIC STEAM NAVIGATION.

THE mutual advantages which one country derives from another, increase in value and magnitude according to the increased facility of mutual intercourse and transportation. This fact is so well established by experience, as to become an evident truism, and that all important places between which an intercourse by steam navigation is established, derive, in consequence, vast mutual benefits, is also a fact equally evident.

When a communication is opened with a country that will enable us to visit it in a certain given period of time, the intercourse is increased in the same ratio as the certainty of arriving at, or returning from that country, more speedily, is greater than by any previous mode of conveyance.

In the same ratio, according to this rule, does the interchanging of the commodities of different countries increase; consequently the prosperity of the inhabitants is advanced, by affording them more plentiful resources, and the political value of such countries equally augmented by increasing general industry and commerce. For when the means of receiving intelligence from and visiting distant countries are rendered certain and speedy, mutual transactions and adventurous undertakings are entered into with much greater faith and spirit, than when the intercourse depends on the uncertain length of voyages, subject to the direction of winds and currents, and to the duration or frequency of calms.

These considerations apply most forcibly to the amazingly vast advantages that would inevitably attend the establishment of a line of Transatlantic steam packets; not only as respects His Majesty's empire in North America, but also as regards the United Kingdom, and particularly as bearing on the great movements of emigration.

If we are secure in former conclusions according to the experience of the last 15 years, we are also safe in saying that steam is the power which will supplant all others in the magnitude and rapidity of its operations. Although we may not be quite so sanguine as to expect making a voyage by steam from Birmingham, Manchester and Liverpool (with a cargo of cutlery, printed cottons and crockery) across the Atlantic, and then up the rivers and lakes of the St. Lawrence, and over the Rocky Mountains to the Pacific and China,—an undertaking far from being impossible,—yet steam is the mighty giant that Great Britain can send forth to bring her possessions in America and the West Indies within half the distance, morally speaking, that they now are to Europe. It is this giant that may enable England to grasp more effectually the vast resources of her maritime colonies, and those of the Canadas, and west of the great lakes, those of the regions of Athabasca and Assinboins.

Since the establishment of steam navigation along the coasts of Great Britain, and between England and the Continent, and particularly between England, Scotland and Ireland, the consequent advantages are too well known and too justly appreciated to be questioned.

If we visit the United States, we find all their coasts and rivers navigated by innumerable steam vessels. There are more than 300 navigating the Mississippi and the Ohio. The magnificence of the steam vessels on the Hudson is not surpassed, if equalled, in Europe; they are in fact splendid floating moveable hotels. A few years ago, small sloops, bateaux and canoes, were the only vessels that navigated the St. Lawrence between Quebec and Montreal, and British manufactures were usually sold from 20 to 40 per cent. higher at the latter than at the former place. At present there are 10 or 12 powerful

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steam vessels, equal in beauty, swiftness and magnitude, and superior in accommodations for passengers to our steam ships in these kingdoms, plying between Quebec and Montreal, and commodities are in consequence now purchased at equal prices at both places. It is not long since the ferry from Montreal to La Prairie, the usual route to the United States, was crossed in a wooden canoe. Passengers, horses and carriages are at present carried over in spacious and beautiful steam boats. The Ottawa and the Lakes of Canada are also navigated by steam vessels. A steam ship, the Royal William, of about 1,200 tons, belonging to the St. Lawrence Steam Navigation Company, navigates the seas between Halifax and Quebec, touching at the points marked in the general map. There are two steam boats belonging to the General Mining Company at Pictou; there is another employed at Halifax and three at St. John's, New Brunswick, one of which goes daily between that city and Fredericton; another crosses to Annapolis, from which stage coaches run to Halifax, and a third plies between St. John's, St. Andrew's and the United States. All this has been done in a few years, and as certainly as the population of our colonies will increase, so will also the number of vessels propelled by steam power.

A company was formed in London, under an Act of Parliament in 1825, for the purpose of navigating the Atlantic with steam packets. In 1826, a great number of the shareholders of that year either withdrew or sold out. The fine steam ship they purchased was also sold, and bought by the Dutch Government, who employed it successfully between Holland and Curaçoa.

Nothing further has been effected, and all the exertions of the intelligent and spirited directors have been unsuccessful; yet nothing but the general ignorance which prevails in these kingdoms respecting British America and the seas of the Atlantic, could have retarded the progress of a company, incorporated with such privileges and with such reasonable prospects of success.

As to the dangers of the Atlantic, they are far from being so formidable as people generally imagine. It has been my fate to have crossed that ocean several times, at all seasons of the year, and sometimes during the most tempestuous weather; and I feel perfectly safe in saying that the sea, in the Irish or English Channel, or in the Gulf and River of St. Lawrence, or even in Lake Ontario, is much more dangerous for steam ships to navigate during stormy weather, than that of the main ocean.

In December 1825 I left the Gulf of St. Lawrence on board of a merchant ship; the weather was so tempestuous that the top-sails were close-reefed half the passage, and in 15 days we were safely at anchor in the Cove of Cork. I left Cork in January for Liverpool, in a steam ship, commanded by an experienced officer, who was for some time on board of one of our ships of war on Lake Ontario. We were in the Channel during a very heavy gale, and a more abrupt difficult sea for a ship to plough through, I never witnessed. The long high swell of the Atlantic, which I had just crossed in such bad weather was nothing to it, yet the steam ship worked over it with amazing ease. The commander agreed with me in considering it much more dangerous than that of the ocean, and that the sea on Lake Ontario, or on the St. Lawrence, was also more difficult for steam vessels than that of the Atlantic.

The commander of one of the steam packets that ply between Dublin and Liverpool, has crossed the Atlantic more than 30 times. I have been over with him as passenger several times to Dublin, and twice, during winter, he declared to me that he never witnessed worse weather, nor such an abrupt dangerous sea, on the Atlantic, as we then experienced. I believe most naval officers will bear me out in these observations. Masters of merchant ships, few of whom know much either of the arts or sciences, cherish a strong prejudice against steam vessels; yet they readily admit that the sea rises more dangerously during tempestuous weather in the Irish and English Channels, in the German Ocean, and in the Gulf and River of St. Lawrence than it does in the Atlantic. Those seas are however all safely navigated with steam ships; and why not cross the Atlantic also by the power of steam?

The Legislatures of all the North American Colonies voted certain sums to encourage intercolonial steam navigation. The House of Assembly of Lower Canada voted 3,000*l.* to persons or companies who would cause a steam vessel to be regularly navigated between the ports of St. Lawrence and Halifax for four years. The House of Assembly of Nova Scotia voted 1,500*l.* to encourage the same object. The Assembly of New Brunswick voted 200*l.* the first year, and 100*l.* each for two succeeding years, provided that the steam packets should touch at Miramichi, and the Legislature of Prince Edward Island voted also a sum on similar conditions.

There is good reason to believe that if Transatlantic steam ships were established, the colonial legislatures would grant sums in aid of an undertaking which promises such great advantages and benefits. If the postmaster-general were applied to, it is also reasonable to suppose that he would direct contracts to be made for the steam ships which navigated the Atlantic to carry the mails, in preference to their being conveyed by the dangerous uncomfortable packets that sail at present between Falmouth and Halifax.

The excellent coal which abounds in Cape Breton and Nova Scotia is not only admirably adapted for the furnaces of steam engines, but it affords an advantage which the United States do not at present possess. This coal has lately been carried for the use of steam vessels to New York and some other places.

2052. Is there any other line of railway that occurs to you that would be advantageous to make in Ireland besides the one you refer to?—Many lines of railway may prove highly beneficial, but no line of railway would afford the same extent of general accommodation to the great interests of the Empire, England and Scotland as well as Ireland. It would lead for a part of its distance to Galway, to Limerick, to Waterford, to Killarney, to Carlow and Cork, and ultimately to the best packet station for the three countries at Valentia Harbour, and thus be productive of great commercial advantages, not merely to England, Ireland and Scotland, but to Europe and the continent of America.

2053. Would not a ship canal from the West coast of Ireland, following the tract of the Grand Canal, as far as it is made, be much cheaper and equally beneficial to the country?—I do not think so, for canals cannot successfully compete with railways when expedition is the object desired, as in the conveyance of passengers, mails and valuable manufactured goods.

2054. Supposing a road of granite can be formed at one-fifth of the railroads, on which locomotive engines can go at the rate of 15 or 20 miles an hour, would you advise your friends to take shares in the railway?—If it was proved to me that one was better than the other, I should select the best, but from the information received on this subject from engineers, I more than doubt the success of such a plan as that suggested by the last question.

2055. Have you ever been in one of these locomotive engines on the common road, and at what speed have you gone?—I travelled about a week or ten days ago for a few miles in a carriage drawn by such a locomotive. It was built by Mr. Field. It afforded me great pleasure; I went as quickly on the common road as I thought consistent with safety; I was astonished at the triumph of science which that engine exhibited, but I have since heard that the succeeding trial was not quite so successful as the one which I witnessed.

2056. At what rate did you go?—I was told that I went part of the time at the rate of 16 miles an hour.

2057. Was it on the common road?—On the Kennington road.

2058. As you have been professionally concerned for both landlords and incumbrancers in Ireland, do you consider it would be to the advantage of both to give greater powers than at present exist for riding over settlements in cases where land is at present waste, or only cultivated to a very limited extent?—I think that powers should be given where *bonâ fide* capital is to be contributed in aid of such improvement of waste lands. The great difficulty the landlord has to encounter is to get tenants who actually will make a *bonâ fide* expenditure. My experience induces me to think that the system is exceedingly defective, by reason of the landlords not being able to procure a tenantry competent to execute such contracts. My own personal opinion and that of others is, that the only remedy is to take the whole expenditure upon the part of the landlord, who should supply lime, &c., make the main fences, drains and roads and build the farm-houses, leaving to the tenants the mere working of the farm as in England; and I am now engaged in the preparation of leases upon this principle, putting the covenants for improvements on the landlord, adding to a reasonable rent for that land a per centage on the actual cost for manures, &c.; if generally adopted I think it would advance the improvement of the country exceedingly. For many years the principle of bonuses to tenants has been acted upon by Lord Headly and others: his system has been, (lime being the manure that is most wanting on his estate) to give 1*s.* a barrel for lime laid out by the tenant; knowing that the tenant gets it for 8*d.* per barrel; so that at the end of each year the tenant is repaid the capital he has expended on the lime, and also for his labour in carting it to his land, and spreading it on the surface.

2059. If landlords in general have not sufficient capital to adopt the system you recommend, do you consider that it would be fair to their incumbrancers to give them a power of alienating a portion of their waste lands for the sake of benefiting the remainder of the land which they reserve to themselves, and for the sake of benefiting the poorer classes of the community in the neighbourhood?—I do not propose a breach of contract between the landlord and his creditors. I take the estate at its value when the creditor made the advance, if by means of any legal facilities that value can be increased by the tenants. I consider that it is not at all unjust to say, that where capital is laid out by a tenant, that the enjoyment should be secured to him as against the incumbrancer as it is against the proprietor in fee. The creditor having no kind of moral right to the capital invested subsequently to his lien, and his charge on the land, ought not to impede improvements by tenants; if so, the

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estate will not even remain as it was when he lent the money, but it will deteriorate, though if my suggestion is adopted, and improvements follow from the removal of legal impediments, and consequently the creditor's security will be enhanced: for instance, suppose a piece of land worth 100*l.* a year is mortgaged, and that it is let at that price to an improving tenant, who expends a capital of 2,000*l.* or 3,000*l.*, surely the mortgagee's 100*l.* a year, which was the security he took for his money, will be worth considerably more in market than before. He will have what we term a chief rent instead of a rack rent, and that chief rent will sell for several years' purchase more than that which was originally pledged to him, and that increase of value must solely result from the improvements made by the tenant whose possession I desire to secure under such circumstances against the world. We cannot expect that improvements will become general until the possession of the tenantry is guaranteed as effectually as possible.

2060. Are you against creating small fee-simple estates?—Certainly not, and my opinion (confirmed by reflection upon and experience of the state of property in Ireland) is, that the greatest difficulty under which she labours arises from the manner in which estates have been granted, namely, in too large masses throughout the country, and more especially in the southern and western districts. One of the greatest modern improvements of our condition is, that these overgrown estates are gradually coming through the Court of Chancery into market. They are mostly sold in comparatively small lots to a new class of proprietors, who are rapidly increasing in that country.

2061. Do you think it would be desirable that the Crown, where it has property such as Publo Keefe, should from time to time sell to such individual tenants as are able to procure the means of purchasing them, small divisions of the estate?—Undoubtedly, every measure which tends to create a yeomanry in Ireland will advance her condition. There are within my knowledge large tracts in which there is but a single proprietor in fee, without any resident gentry; and to this I attribute much of the present disorganization in that country.

2062. You have heard the suggestion, that when Government makes roads by public grant through wild districts of country, it is only fair to expect the landed proprietors should surrender to the Crown a certain portion of the land to be resold in small lots; do you consider that suggestion a practicable one?—I think we should encounter great difficulty in giving effect to such a system. The present difficulties arise from the entire estate being conveyed by each and every change, so that we cannot bring portions of it to sale; we must first bring the whole under the management of the Court of Chancery, and that process is so extremely expensive and dilatory, that it requires an immediate remedy. To former Committees of the House of Commons, I proposed in reference to this subject that the owners of estates might be at liberty, through a summary process, as if a trader, to present a petition to the Court for leave to sell; and having got an order, that it should have all the authority of a final decree for sale, and on the purchase monies being lodged, that all parties should be called upon to make their claims as against the fund brought into Court; and thus the money would be distributed without the expense of two decrees. An account taken and finally entered, I would think sufficient for all purposes; a report of priorities. The rights of the parties could be equally well attended to and protected by the Court under the summary process I suggest, as under the present system. The damages for land taken for Public Works are so disposed of; the jury values the estate to be sold, and the company pay the money in Court, and on this the purchaser's title is complete, and the parties have merely to suffer the expense of drawing the money out of Court according to their respective rights.

2063. Would you give the power of presenting that petition to the incumbrancers as well as to the proprietor?—Certainly.

2064. Do you think that the question of priorities would be determined as well in the Master's office as at the hearing?—In practice they are now determined in the Master's office; the machinery of filing bills and putting in answers, examining witnesses, the obtaining a decree to account in the Master's office, then obtaining a report, and subsequently a final decree, might be safely dispensed with. The question at last is to get a purchaser, and if the Court had a summary authority to sell, the parties interested in the suit might come in, and make their claims as against the proceeds of the sale (which is the case in bankruptcy daily) instead of against the land.

2065. Might

2065. Might not property often be sold at great disadvantage in that way?—I think not. *Pierce Mahony*, Esq.

2066. Are you not aware of any fraudulent sales being carried on through the medium of a court of equity by the present machinery?—No such case has come within my knowledge. 1 June 1835.

Mr. *William Cubitt*, called in; and further Examined.

2067. HAVE you any suggestions to make to the Committee respecting the manner in which money might be advanced, partly by way of loan and partly by way of grant or loan, not bearing interest by Government, for the purpose of making roads and canals in Ireland?—Yes, I have. I understood that there was a disinclination to grants being altogether given where private individuals were reaping a benefit exclusively to themselves from the advance of this very grant after the loan had been paid off. My idea goes to this, that if the Government advance money to assist individuals in carrying on a great work which may be of public advantage as well as of individual interest, that such interest should be confined within certain limits till the whole of the money advanced by Government had been paid off. For instance, if Government advanced one-third of the capital as a loan to be repaid with interest, and one-third as a loan to be repaid at some future time not carrying interest, and the body of proprietors advancing the other one-third to aid the thing, and for their own advantage afterwards, it would be but perfectly fair that the payment of 5 per cent. should be made to Government for the amount of the first one-third, two per cent. of which should be a sinking fund till that one-third was paid off; the surplus of the 5 per cent. during the time, if any, to go to the proprietors as a company after the first loan has been paid off; then all the surplus above the 5 per cent. should revert to Government till the amount of the second loan was paid, and then the company should hold the whole in perpetuity for their own benefit. Mr. *W. Cubitt*.

Veneris, 5° die Junii, 1835.

ANDREW H. LYNCH, ESQUIRE,

IN THE CHAIR.

Matthew Barrington, Esquire, called in; and Examined.

2068. ARE you Crown Solicitor on the Munster circuit?—I am. *M. Barrington*, Esq.

2069. In that capacity has it been your duty to prosecute several individuals from time to time?—It has. 5 June 1835.

2070. Have you been able to trace in any degree the causes of the disturbances in those parts of the country with which you are acquainted, and in which your business lies?—Yes; I kept for several years an account of the cause and origin of each outrage on the Munster circuit; but it would be a long detail were I to give them to the Committee. Several of the causes are detailed in my evidence (to which I beg to refer) before Mr. Spring Rice's Committee in 1830, on the condition of the Irish poor, and before Sir Henry Parnell's Committee in 1832, on the state of the Queen's County.

2071. Do you still continue of the same opinion?—Most decidedly.

2072. Are you now prepared to state before this Committee that a judicious expenditure in the way of public works would be highly beneficial to the country?—There can be no doubt whatever that it would; and in addition to the former evidence, I would mention an instance of the value of such improvement. On a tract of land which I possess in the county of Limerick, I expended of my own money in the formation of a public road through a mountain, 700*l.*, the Board of Works laying out a sum of equal amount. In consequence of that expenditure, it has nearly doubled the value of the land through which the road went, by merely affording to the occupiers the means of drawing up the lime on cars, which was previously carried in baskets on horses' backs; and this road not merely benefiting my land, but the whole range of country beyond it.

2073. Do you mean doubled the cultivated as well as the waste?—No, merely the waste land, but also raising the cultivated; the waste land that was set at 2*s.* an acre was made worth double.

M. Barrington, Esq.

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2074. Do you consider it as immediately worth 4*s.* an acre?—I do.

2075. And is its value increasing?—It is; I have no doubt that with a very small expenditure of capital, and the judicious formation of public roads through the country, the dry mountain lands would double in value in almost every part of Ireland; lime alone turning those heathy lands into fine pasture and good meadow land. No lands produce better oats than the reclaimed mountains.

2076. Is there ample room and opportunity for such outlay?—In almost every part of the country, unless in the midland counties; and even there, there are the bogs capable of improvement.

2077. Is not the consequence of such improvement not only the temporary employment afforded the poor in making the road, but permanent employment in the cultivation of the land?—Certainly, and a great advantage in the administration of justice, for in those parts of the country which were almost inaccessible, it was necessary to increase the police and military force, but by opening these districts and intersecting them with roads, it gave easy access to the police in keeping the peace; I allude to the great mountain district between the counties of Cork, Limerick and Kerry, which were the scenes of murders and other outrages about the year 1821, and the retreat of every offender with an almost certainty of freedom from arrest; but since the formation of the roads in this district, it has been almost free from outrage.

2078. The general tenor of your evidence given before former Committees to which you have referred, was to the effect that the most certain way of preventing disturbance occasionally taking place in Ireland was to find employment for the peasantry?—It was.

2079. And now you recommend as the best means of finding that employment the formation of public roads across those waste tracts of land which are at present scarcely accessible?—I do; the formation of main roads, leaving the branch or minor ones to the grand juries; but great public roads, or great public lines of navigation should be executed by a public board, as the lungs of the country, and thus avoid the local interest which each grand jury has to consider.

2080-1. In your opinion it requires an impulse to be given to it?—Most assuredly it does, and it may arise from a want of money; I would give a grant of half the expenditure to every man who would lay out a moiety of his own money (not that he is to borrow money on the county rates, and consider that as a moiety of his own), but he should lay out a moiety of his own money, and get a grant of the other moiety for the formation of main roads, which although useful to himself, (as, of course, he would not expend any money if they were not so) are still of great public utility.

2082. Under what circumstances is the waste land, at the side of these new roads you have spoken of, taken into cultivation?—By the proprietor of the estate or tenant.

2083. The proprietor sets them, does he not?—In some instances he improves them himself, limes them, makes drains and divisions, and thus forms them into farms of proper sizes, and then sets them.

2084. Would it not be desirable in your opinion that the occupiers of the land so brought within reach of the improvement, should be permitted to have a durable or permanent interest in that occupation, with a view to produce a spirited improvement?—I think it would be very desirable, and it was the main principle of a Bill I was anxious to have passed last year, in order to create a respectable class of small proprietors or yeomanry in Ireland as in England, which is so much wanted. I proposed to give, with proper checks, facilities to tenants for life, and those under settlement to demise on lease, in perpetuity, their uncultivated or waste lands to a company, who were to improve and then sell them, in small farms in perpetuity; and as there are few occupiers in Ireland who could afford to pay the price down for a piece of land, he might pay by a small annual addition to his rent. If the land were worth 1*s.* an acre, let him pay 1*s.* 6*d.* for a given number of years, or 1*s.* 3*d.* for a greater number of years; and thus, by a gradual annual payment, reduce the whole, and ultimately have the land rent-free.

2085. Still that would leave it in the power of the present proprietor of the soil to assume to himself the entire benefit of the improvement thus produced on his waste lands by the expenditure of public money?—It never could; it would not be done by the proprietors; I meant it to be done by a company, who were to purchase the land from the proprietor.

2086. It has been suggested, that Government might fairly appropriate a certain portion

portion of waste land, so improved at the expense of the public, with a view of selling them in small freehold lots, or leasing them out on the terms you propose, as a compensation to the public for the money advanced in making those roads? —If an arrangement could be made with the proprietors, it would be desirable.

2087. Giving power to Government to make the contracts subject to the power of selling afterwards to the peasants in small lots?—Certainly, but not to make it compulsory on the proprietor to give his land in lieu of a road; but if in any uncultivated district three-fourths of the proprietors agreed on the formation of a road, then it should be, by commission or some other means, ascertained how far each of the proprietors is benefited, and he should pay either in money or land the amount so ascertained, as a fair equivalent to the public for the money expended on the road. It is the very principle on which I consider it desirable, that if any proprietor expends a moiety, the Government should give another; the Government thus paying for the benefit to the public, and the proprietor for the improvement of his estate. It would also make the persons served who would not contribute, pay what was fair. In the road I first alluded to, two persons were benefited whose estates the road ran through, and who did not contribute; they were benefited at my expense and that of the public; it would be desirable that parties benefited should be made to contribute; I allude to great tracts of country, not at a small distance from a public road, where a man may say, I am near enough to the road.

2088. Would you give the power to the Board of Works to run such a road?—Yes, certainly.

2089. Do you see any difficulty in taking a proportionate quantity of land from each owner of the waste, according to the benefit the remainder of his estate is likely to derive from the road?—It will require a great deal of consideration and arrangement how to do it; a commission on the spot would be the only way of doing it. I would beg merely to give an opinion, that I think it very desirable to be done, but the mode of doing it would require consideration. I have not had an opportunity of considering it, being ignorant of the subjects on which I was to be examined.

2090. You would have it to a certain extent voluntary?—Yes, or that a certain number of proprietors should do it.

2091. Then it would be a sort of agreement between a certain number of proprietors and the Government?—Yes, it would: for instance, if it were an improvement of the Shannon, I should consider that every county along the banks of that river ought to contribute more or less, according to the benefit to each county, to be ascertained by a proper commission.

2092. Supposing Government by such an arrangement were to become possessed of very extensive tracts of waste land, do you not conceive that a system might be adopted by them for the letting out or the sale of those tracts, with a view to the formation of a yeomanry through the country much more beneficial than would be likely to be adopted by individual proprietors, if such waste land remains in their hands?—Assuredly; for individual proprietors would like to keep the political as well as every other control over the tenants; if a yeomanry is formed, they will be independent of the landlord.

2093. If the owners of the waste lands were the Government, would they be more likely to employ them beneficially for the public than the private proprietor? —I think they would.

2094. Provided they are disposed to sell?—Yes.

2095. But not otherwise?—No; I have heard that Pobble O'Keefe is improving, for the example it will show in the bringing waste lands into cultivation.

2096. Do you think it very desirable that Government should adopt that principle with respect to Pobble O'Keefe, and that that estate should be divided into allotments?—Yes, of good sized farms.

2097. And be sold to the industrious tenantry?—Yes; in the manner I suggested, so as to prevent it falling into the hands of one great proprietor. This can be done by not selling it at once and asking the price to be paid down, but by a scale of rent according to the length of time that the person purchasing would wish to have for payment of the purchase money. Suppose you give a farm of 50 acres, and say that is worth 50*l.* a year; that at 20 years' purchase is worth 1,000*l.* If the purchaser wishes to pay that 1,000*l.* at 60*l.* or 70*l.*, or any other sum a year, I would take a scale of payment at a fixed interest as rent until paid off. Thus by a gradual and small annual payment of not more than perhaps a proprietor would charge as rent, if he purchased, a poor man is enabled to look ultimately to have a free estate, which gives him a strong interest in the preservation of the

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peace of the country, and would tend to prevent the disputes about land, one great cause of disturbance in Ireland.

2098. What is the average size of the farms you would recommend it to be divided into?—It would depend on whether there was any tolerable tillage land attached to it; in waste land from 30 to 50 acres.

2099. Is not that beyond the means of the small peasantry so as to give employment?—The greater part of that land would be in grazing, 50 acres of the one would not be equal to 10 acres of the other. If it were tolerable land he need not keep a horse. On 50 acres he will have his grazing cattle and make his money by butter, having a few acres in tillage, which he could farm by spade husbandry, but the size would depend altogether on the kind of land.

2100. And on the facilities for manure?—Yes; and that is the great advantage of making roads; they should be all made with that view; it is so common in Ireland to have the finest quantity of limestone, which is the best manure for mountain land near the foot of the mountain.

2101. Do not you think it would be an advantage to the country to have a number of small fee-simple estates, even of the smallest description, as low as five acres?—If you make them very small they are apt to sink into the hands of large proprietors. I do not consider that 50 acres of mountain land is more than five or six of rich low land.

2102. But those 50 acres in the process of cultivation will become equal to the best land?—If you do not prevent sub-dividing, it will soon be divided into farms small enough. If the owner has five sons he will probably divide it into five parts.

2103. Are you an extensive proprietor of waste land?—I have a good deal of land near Limerick, but my improvement has been mostly planting. I have planted some hundred acres within 12 years.

2104. Are you aware of the clause in the Public Works Act, enabling commissioners to lend money to individuals for the improvement and drainage of lands?—I know there is such a clause in the Act.

2105. Do you know that tenants for life and other persons having particular estates, though they are enabled to raise money by contribution for moiety grants, are not able to borrow money under the Act?—From general recollection I believe it is so.

2106. Would it be useful for tenants for life, or other persons having particular estates, that they should have that power, and if so under what regulations?—I think it desirable that they should have the power both for their own benefit and that of their successors, if there were proper guards to prevent injury to the inheritance.

2107. Supposing money were laid out by the Commissioners of Public Works, and that it was confined to an expenditure equal to three years' value, and also with the approbation of a Master in Chancery, would not that be a sufficient and fair protection?—I think it would; I do not see how there could be any great injury done to the inheritance by confining the expenditure to a sum equal to three years' rent of the land, taking the precaution of having the work done by a public body, with the approbation of a Master in Chancery, and notice being previously given to the next in remainder and the trustees of the settlements.

2108. Would not such a power be highly beneficial to the country?—I think it would, and to the owners of the estates. A tenant for life will not like to advance his own money on the improvement of an estate, unless he had the power of charging the expenditure upon it. If he had the power of charging a certain sum, he would most likely advance a good deal more.

2109. Is it your opinion that loans from the Board of Works to individuals for the purpose of improving and reclaiming estates might be safely made, the first charge on the estate, without consent of the subsequent incumbrancers?—That would depend on the nature of the improvement; if it were such an improvement as would benefit the estate itself, and immediately increase the actual rent of the estate, I think it would be very fair to give priority to all other incumbrancers; but if the improvement was such as merely tended at a distant period to improve the estate, such as running a road through a great tract of country, and opening that country, and ultimately benefiting the land, it would be matter of consideration how far it would be just to the creditor or those taking charges under settlements to give priority altogether for an expenditure which may be considered more or less a speculation.

2110. In any case is not the result of the employment of capital upon an estate, to a certain degree, in the nature of a speculation?—Yes.

2111. And

2111. And on that account there might be an objection on the part of the mortgagees to allow that priority?—Just so; if it were a certain improvement, I think it would be unobjectionable, but many men of ardent minds will speculate on the result of an expenditure which others would think not quite so certain.

2112. Who is to judge of that?—The Commissioners of Public Works.

2113. You would invest the Board of Public Works with the power of judging as to the probability of the inheritance being rendered more valuable by such an outlay?—Yes, with the approbation of the trustees of the settlement, and that a certain portion of the incumbrancers consented; there may be fraud committed by the tenant for life; suppose a tenant for life whose estate was encumbered to its value, he may speculate on some great rise, and take the chance of its success or failure.

2114. Would not the sanction of the Public Works be a sufficient check on that?—The Public Works are a Board always residing in Dublin; they cannot visit every estate; they must take the representation of it from individuals interested in getting the loans: if a false representation is made, it is by an individual who is interested in getting the loans; he makes his case as strong as he can; but I think there is little difficulty, for there are no incumbrancers in which a moiety would not, if they saw a positive improvement, agree to the charge; and a moiety of all the incumbrancers approving it should be made a first charge.

2115. You are aware that by the Act, if four-fifths now consent, priority may be given?—Yes.

2116. You think that is too severe?—I think it is.

2117. Are not the occupiers of land harassed by the creditors of the landlords?—They are very much, which arises from the system of *custodiam* and *elegit* process, which should be done away with.

2118. What would you substitute?—I would substitute a receiver under the Court, and pay the creditors according to their priority; if you refer to my evidence before Mr. Grote's Committee last year on Sinecures, you will find the evidence of a large sum arising from fines totally unproductive in Ireland. I have known great disturbances arising from the *custodiam* process; it leaves the unfortunate occupying tenants to litigate the priority between the landlord and his creditors in the Court of Chancery or Exchequer in Dublin; thus, suppose a poor tenant is served with a *custodiam* order by one creditor, he is served with a second by another creditor; then comes an *elegit* creditor on a prior judgment; he calls on the tenant to pay him a moiety of the rent; then comes another *elegit* creditor, who insists on having a moiety of what is left of the rent, and sometimes in an encumbered estate there will be perhaps ten claimants for the same rent; the occupier does not know which to pay; if he pays one in error, the other distrains him, and he is the person left to ascertain the priority of creditors' claims, though the costs of doing so may exceed his rent, and after being distrained by each creditor. This leads to resistance to the creditor who distrains after the tenant has paid his rent (perhaps in error) either to his landlord or another creditor; a rescue is generally the consequence, and sometimes loss of life.

2119. Is not the poor man often obliged to pay his rent more than once?—He seldom can pay it, but is frequently distrained for it: in fact the occupier is left to litigate in the superior courts the question of priority (though he has nothing to do with it) between contending creditors.

2120. What is your remedy?—The remedy is, that if a creditor finds it necessary to proceed against the lands of his debtor, a receiver of the rents of the estate should be appointed by the court in which the judgment is entered, and the whole rents received, and not a moiety as under an *elegit*. If the principle is approved, the mode of carrying it into effect will not be difficult. If an estate owed money, and only one person being authorized to receive the rents of the estate, would be not merely beneficial to the occupying tenant, but also to the owner of the estate and to all the creditors. Now a great portion of the rent goes in the costs of litigation. I would abolish the *custodiam* process, which is obtained on a mere fiction in Ireland, and which is never allowed in England unless on a *bonâ fide* case being made out. It is supposed that the creditor is a debtor to the Crown, and has a right to avail himself of the Crown process to get possession of tenants' rents to enable him to pay the Crown. I prepared a Bill to remedy these abuses some time since.

2121. You state that there is a loss from fines in Ireland; how does that arise?—I mean the fines on witnesses and jurors, which are seldom received by Government

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ment to near their amount. They amount to many thousands a year, which would go far in support of the public hospitals in Ireland. The mode of proceeding is this: A person is fined as a witness or juror at the assizes; that fine is estreated into the Court of Exchequer. The process for levying that fine does not issue for several months after. If the process issues for 900*l.*, the sheriff is entitled as his fees to 6*s.* 8*d.* in the pound. If the sheriff levies 300*l.* in money, and puts insolvents for 600*l.* into gaol who are discharged at the assizes, he takes the 300*l.* first levied as his fees on the whole 900*l.*, and thus no part of the levy reaches the public. I saw the absurdity of this proceeding, and in an Act I prepared in 1830 to amend the White Boy Acts, and for abolishing the punishment of death on White Boy offences, and substituting transportation, I put in a clause enabling the judges of assize to issue the process at once for recovering of fines, and to apply the product to the infirmaries of every county, and that the sheriff should be obliged to levy them without being estreated at sixpence in the pound. The consequence has been, that the amount now goes to public charities, which would otherwise be lost. If that principle was extended to all fines and penalties at the quarter sessions and assizes, and under the Spirit License and other penal Acts, it would raise a large fund for the hospitals, and lighten the grand jury levies.

2122–3. You have given a good deal of attention to the practicability of the establishment of "Monts de Piétés," or charitable pawn offices, such as exist in many of the continental states; will you describe to the Committee briefly the manner in which you think they might be best established?—I have for several years been anxious to introduce them into Ireland, and have taken great pains to collect information on the subject, and to ascertain the laws and regulations of these establishments on the continent. It is remarkable that the only countries in which private pawn offices are allowed is in Great Britain and Ireland. In the rest of Europe I cannot find one that is not under government regulation, and for the support of public charities, the object being to "lower interest to the poor, and turn profit to the hospitals." I think they could be established by subscription loans in the first instance, as I believe was done in France. There is a very large one at Bordeaux, and we might regulate them by law, as Bonaparte did by the Code Napoleon in 1804, and Louis in 1824. I have been so anxious on the subject, that at this moment I am getting one erected at Limerick, and I propose having the fund raised by debentures at 6 per cent., and to apply all the profits, after paying that interest in the support of an hospital. I would beg to refer to a Prospectus which I circulated on the subject, and which I request may be considered as part of my evidence on this subject.

2124. It has been found abroad a very productive source of revenue, and you think it would be so here?—I think the profit would be more than sufficient for the support of all the public hospitals of the country.

2125. Would you think it necessary to have a special Act of Parliament to encourage the institution?—I think it may be necessary; and the principle of the interference of Parliament is admitted, as it is a singular fact that the pawnbrokers of Dublin pay 100*l.* a year each (above their license) to the support of the local police, which amounts to several thousands a year, although no other pawnbrokers in England or Ireland are similarly charged.

2126. The profits of pawnbrokers are very considerable?—Enormous; they are allowed 25 per cent. by the Pawnbroker Act in Ireland, but they receive several hundreds per cent., as will appear by the Prospectus I have given in.

2127. Are not small agricultural farmers exposed to great extortion in the way of loan in Ireland?—I cannot say; whenever they borrow from the loan funds they are honestly and fairly treated, but among themselves it is possible they may not be so.

2128. Would you recommend that the system of lending small sums of money to small farmers be increased?—When you can do it with security, I would.

2129. Are you confident of the beneficial results from the loan fund arising to the city and county of Limerick?—I am.

2130. It not only maintained itself, but produced a profit of 1,100*l.* or 1,200*l.* in the course of eight or nine years?—Yes, there has been a very great profit, and increase of capital; I would increase the fund out of which the advance is made to almost any extent you please.

2131. On what security is the money advanced to farmers?—It is advanced on the personal security of the person borrowing and two others.

2132. On the security of the borrower and two other solvent persons?—Yes; therefore

therefore he must be a man of good character, or he could not get two others to join him who are solvent.

2133. To what extent do you think that personal security can be safely taken upon loans by the Board of Works, at present they being limited to 1,000*l.*; do you think that that sum could be exceeded?—That would depend altogether upon the security; I do not see why the power to the Board of Works to lend should be limited to 1,000*l.* You may have as good personal security for 5,000*l.* or 7,000*l.* as you have for 1,000*l.* Limiting the amount does not alter the nature of the security obtained, particularly as they lend not on the individual personal security, but with two sureties; I do not think there is a risk in extending the limit of the personal security, provided the repayment is not distant.

2134. There is much greater facility of making loans on personal security than on mortgage, for which you are obliged to exhibit all the title-deeds and the abstract of the title-deeds of the estate?—Much more where the personal security is good; the person applying does not like to go to the expense, particularly if the sum is small, of investigating the title to a freehold estate.

2135. If the fee on searches which is at present required were removed, would it materially reduce the expense to which a borrower on mortgage is liable?—Certainly it would; I think it is the heaviest charge now, and one that ought to be removed. I see no difficulty in removing it; it is a payment to the Treasury; and as they have given up the stamp duty on deeds and other securities relating to public works, I see no reason whatever why all payments for fees in the Registry Office should not be abolished.

2136. How would you propose to do it so as to prevent fraud?—I would propose that every search on a loan for a public work that was applied for by the solicitor to the Board of Public Works should be given without charge; that he should be responsible as a public officer; that when that search was received no other use should be made of it but for the purpose of the loan, and if the loan was not completed, that that search should be cancelled or not given to any party.

2137-8. You mean that it should be a confidential transaction between the Board of Works and the officers of search?—Yes.

2139. As to turnpike roads, would you consider it desirable that the present turnpike-road system, that is the system of maintaining and repairing roads by turnpikes, should be abolished, and should be placed under the management of a Central Board as a general measure, such as the Board of Works?—I would certainly; it would be very desirable that all the main roads of the country should be under some public central control.

2140. Would you give a general controlling power to the Commissioners of the Board of Works over the grand juries?—I would rather the Public Works should do all the main roads of the country, and let the grand jury present for them.

2141. In all cases of compulsory presentment, do you not think it is fair for the grand jury to have the accounts of the expenses of the details submitted to them, so that they should point out any case in which they think there has been mal-administration or want of economy?—I would give publicity to all accounts, as is the case for police presentments. The grand juries seldom look into the accounts, yet they are always ready to be submitted to them if they wish to examine them, and the inspector general of the province, or the sub-inspector, is directed to attend the grand jury to give explanation as to each item.

2142. That is a matter of courtesy?—No, as matter of right.

2143. This is not the case with respect to presentments under the Board of Works?—I believe not.

2144. And with respect to many other compulsory presentments?—No.

2145. Would you recommend that the Act passed last year, the temporary Act respecting mail-coach roads, should be made permanent?—I do not recollect the Act; I would recommend that the repairs of the main lines of mail-coach roads should be done by the Board of Works under the direction of the post-office.

2146. Do not you think that there is a material objection to the present system of grand juries paying for roads that pass through their particular counties, when perhaps those roads may not be particularly advantageous to the counties they pass through?—I cannot say there is.

2147. Are you aware of the case in the county of Roscommon, that the Sligo mail-road and the Galway mail-road both go through different extremes of that county?—I am not aware of it; but even if it did, perhaps that would be the exception;

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tion; there is scarcely a road that goes through any county that is not beneficial to it.

2148. Although that may be so to a certain degree, do you not think it will be better that all the expenses of the mail-coach roads in each province were borne equally by all the counties, according to their number of acres?—If it were possible to do it, I think the best system would be to make main lines of road all through the country, and have one general tax for them, and let each grand jury present for the branches from the main line beneficial to the county.

2149. Would you apply that principle to the whole of the United Kingdom?—I do not think you could tax England for roads in Ireland, but I would lay the tax over Ireland for the main roads in Ireland, if it could be done; and have a public central body, adopting a general line of roads without reference to existing roads, but availing themselves of any that were desirable.

2150. This should be in relation to towns and places that were passed through?—Yes.

2151. If the principle be good in respect to the whole of Ireland, may not the principle be equally good with respect to the whole of the United Kingdom, and might not the funds be provided out of the general revenue?—This would be difficult.

2152. How would you draw the line between the main roads and the inferior ones?—I would take every road that went direct from Dublin to a county town to be a main line, and from that town to the assize town of another county: I would consider the mail-coach lines as main lines.

2153. Would you consider it a main line from Ennis to Kilrush?—No.

2154. But from Limerick to Galway you would?—Yes, where it was a main road terminating at some assize or large town, no matter whether from one large town to another; but where it went from one assize town to the interior of the county and ended at a village, I should not consider that a main line.

2155. Do you consider it desirable that grand juries, if grand juries should be hereafter remodelled, or an equivalent body representing the general interest of the county, should possess increased powers with respect to different descriptions of Public Works, which at present cannot be presented under the existing laws by grand juries, such as the erection of piers and the improvements of rivers; do you think it would be desirable to give grand juries the power of doing it?—I would, provided a public board having decided on what the improvement ought to be; but I would not give the grand jury the power of erecting a pier, and then presenting for it, unless it were approved of by some public board.

2156. Improving a harbour, where, for instance, there may be at the mouth of the harbour a few rocks, would you think it desirable that the grand jury should have the power of removing those rocks?—Certainly, I would.

2157. Under the control or superintendence of the Board of Works?—In so obvious an improvement as that I would give them power, almost without control, as much as I would in removing rocks from the high road.

2158. Would you think it desirable that grand juries, or any local body, should have the power of establishing in the waste lands in such counties in Ireland, establishments such as there are in Holland, with a view to the reclamation of such lands and the employment of the able-bodied poor?—I am not sufficiently acquainted with the establishments in Holland to form an opinion.

2159. Might not such a body as has been mentioned, having the powers of the present grand juries, but still more extended, be made the means of giving employment to all the able-bodied population of the county, who might at any time be in destitution from want of it?—I see no objection to such body giving employment in public works.

2160. The question contemplated something of this kind, that the grand juries should have the power of appointing a committee, with permanent functions, but liable to change members; that that Committee should have the power of purchasing lands, the value of which does not exceed a small yearly rental; that upon lands of that description they should have the power of raising necessary buildings, and eventually selling to the colonists small portions of land in the same manner as was contemplated in the former examination with reference to the Crown lands?—I think it would be very desirable that there should be power given to somebody to purchase these lands, and set them out in the manner proposed, but I am not prepared to say whether it should be by a committee of the grand jury, which is a fluctuating body.

2161. Do you think it desirable that there should be in each barony a committee permanently sitting, for the purpose of of superintending all public works within the barony, and directing the funds raised for public works more especially to the employment of such of the able-bodied poor as were unable in their own parish to obtain employment?—I am very much against a committee in each barony; I would rather have one in every county. I am afraid of baronial authority; it would keep excitement alive in every barony, which it is desirable to avoid.

2162. It has been proposed, that in case of the tributaries flowing into the Shannon or other navigable rivers in Ireland, or rivers that might be made navigable, and lakes, that one-fourth should be given by Government, one-fourth should be subscribed by individuals, the proprietors, and that the other half should be lent by Government on tolls to be raised on the navigation until that half was paid, when no tolls should be payable but those necessary for maintaining the works; in your opinion, would that be a useful expenditure of money, and a fair way of raising money necessary for this purpose?—I think it would; but raising one-fourth from the proprietors would be very difficult; I would rather raise it from the county generally or the barony; if a proprietor has an estate upon the banks of a river, the person who has his estate next to it is nearly as much benefited as he is.

2163. Suppose that there are individuals willing to embark capital on the improvement of inland navigation, and that they will subscribe one-third of the cost of such expenditure, that Government will lend them another one-third on the security of the tolls to be derived, and that the other third will be a grant by Government; do you think that that would be a useful expenditure of the public money?—It is very reasonable for Government to give a grant of one-third, where the other two-thirds were raised either by loan or subscription; but the grant of one-third should altogether depend on whether it is a public work, or solely for private advantage.

2164. What do you mean by public works?—The improvement of navigations, and the formation of great lines of road, of which the public could avail themselves.

2165. Do you think it fair the public should contribute more, without repayment, for those works, the profit of which ultimately returns to individuals?—Certainly not; no, I do not consider that fair, but I would lend money on these works liberally.

2166. Take the case of the Kingstown Railway?—I do not think Government ought to contribute to the Kingstown Railway, unless by lending money at the lowest possible rate of interest and most distant payments. I do not think there should be a grant, unless the public get an equivalent benefit. In a case where individuals establish a great public line of communication (though there is a certain rate paid to them for traversing it), there may be a grant, provided the charge was proportionably reduced, so as to be beneficial to the country. I conceive that for every grant from Government there must be some public benefit or equivalent given in return. In grants for high roads, the individual who gives half is benefited in the improvement of his estate, and the public is benefited by an open communication, being the equivalent for the grant from Government of the other half.

2167. In the first case put to you, that no tolls were to be exacted after the payment of one-half to the Government, in that case you would not object to the grant?—No, certainly not; or if, in the other case, the tolls were so limited wherever the public benefit was great.

2168. Would you say ten per cent.?—I have not considered, and would not presume to give an opinion as to the amount. Wherever it is considered that the advantage to the public is equivalent to the grant, no money could be better applied, for the more you open the country, the greater will be the saving in the expense of military and police, and the more productive the public revenue.

2169. Would it not be desirable in all cases to establish a limit to the amount of tolls that may hereafter be taken from works of this description?—No Bill ought to pass without a maximum toll, leaving a discretion to reduce, but no discretion to add. No Public Bill or Private Bill ought ever to pass that gave the power of charging undefined tolls; I never saw an Act in which it was not limited.

2170. Would you conceive it expedient that the Government should become merely shareholders in such an undertaking as the Dublin and Valentia Rail-road, in the same manner that the French and American Governments have done, so that the Government would have no priority of receiving the tolls, but merely gain or lose with the rest of the company?—I certainly think it would be very right in Go-

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vernment to advance a sum of money, taking the risk of the rise or fall of the security or failure of the undertaking, with this proviso, that there is a security for the work being done, and that it is one of great national importance, as the rail-roads talked of from Dublin to Valentia and Galway.

2171. Then, if half the sum considered necessary by the Board of Public Works for the rail-road from Valentia to Dublin was subscribed, you think it would be expedient for the Government to subscribe the other half?—Certainly, so that the half subscribed by individuals was first expended, and that Government had an equal participation of the profits on expending the other half.

2172. Might not the Government very properly trust to the Board of Works for giving them a report as to the advantage of the undertaking, and that they should advance their funds, in the first place, with the other half which the subscribers had advanced?—I should be afraid that if Government did not insist that the entire moiety, or at least a great portion of it, should be first advanced, there would not be the same anxiety on the part of individual subscribers to pay their subscriptions, as if the Government had not advanced any until the others had paid in their shares, and that Government may be left to finish the work.

2173. If it was all paid up, Government having no risk?—No; that I consider the same as if it were expended.

2174. That the expenses should then go on *pari passu* you mean?—Yes.

2175. You stated the difficulty as to the fourth to be levied of the property benefited by the navigation; would not the jury or the commission ascertain the benefit to the parties?—I think they could as to counties; but I fear it would be very difficult to do so as to individuals.

2176–7. You consider safety harbours as national works, which ought to be paid out of the national funds, on the sea coast?—Yes.

2178. Do you think they are required on the West coast of Ireland?—From all I have heard, they are required very much, particularly on the western coast.

2179. Have you turned your attention to the fisheries?—No.

[*The Witness delivered in the following Prospectus:*]

PROSPECTUS for establishing a "MONT DE PIÉTÉ," or CHARITABLE PAWN OFFICE, in *Limerick*.

IN the year 1833, a proposal for the establishment of a "Mont de Piété" in Limerick, was so well received by the public, that the building is now in progress of being erected. The profits were intended to be applied towards the support of the "Barrington Hospital and City of Limerick Infirmary;"* into which, from its opening, on the 5th November 1831, there have been admitted 1,066 persons; of which number 733 were discharged cured, and five incurable; 231 were relieved, 67 died, 30 remain in hospital, and 32,190 externs received advice.

During the prevalence of cholera, in 1833, the governors having allowed the hospital to be used for patients afflicted with that disease, 1,537 persons were admitted, of whom 986 were discharged cured, and above 1,000 externs were relieved.

The voluntary benefactions of several of the inhabitants of the city, and of others unconnected with it, have given some funds to the establishment, but by no means commensurate with the aggregate of suffering, or the demands for relief, which may be expected in a population of above 90,000 persons. Several are refused admission daily, although there is ample accommodation for double the number of patients, if there were funds for their support.

To extend the benefits which the hospital has conferred, and to increase its utility, inquiries have been directed to the means by which similar institutions are elsewhere sustained.

On the Continent, especially in France, Germany, Holland, and Italy, most extensive hospitals are amply supported by establishments called "Monts de Piété," and there is little doubt that a similar institution in Limerick, would not only enable the hospital to afford relief to the fullest extent required by the population, but also, in another respect, most materially benefit the poor of the city.

Without entering into the details of the management of the "Monts de Piété," it is only necessary to explain the general objects of these charitable institutions.

It is well known that the distress and improvidence of the poor frequently compel them to have recourse to the Pawnbroker, and that the advances which they there receive are made at a rate of interest ruinous to the unfortunate persons who seek this mode of temporary relief. It is true that the rate of interest is sanctioned by Government, as by the 26 of Geo. III. chap. 43, they are permitted to receive 30 *l.* per cent. per annum, besides the allowance for duplicates. This is on supposition that the pledge is not redeemed before the expiration of a month. The practice is otherwise, as the most distressed persons frequently

* Incorporated by the Act of 11 Geo. IV. intituled, "An Act for the Management and Direction of the Hospital founded by Joseph Barrington and his Sons, in the City of Limerick."

quently redeem the pledges within the week. It is a common habit to deposit some article of apparel on the Monday morning, which is redeemed on Saturday night, to enable the individual to make a decent appearance on the Sabbath. But as the lowest charge of interest by said Act (and the amendment thereof, 28 Geo. III. chap. 29,) is for a month, and as it is very much the habit to redeem in a week, the charge including the price of the duplicate (without calculating compound interest, or the interest on a shilling where only a fractional part is given, and for which interest is charged as if the entire shilling had been lent) will amount, in the cases of those in the greatest want, to 866*l.* 13*s.* 4*d.* per cent. per annum.*

Though this business is, in most instances, conducted by persons of fair and unblemished character, yet there is generally some degree of odium attached to it, from its being thought that advantage is taken of the ignorance and necessity of the borrower, and that the enormous profits of the lender are wrung from the distress and misery of the poor.

The "Monts de Piété" were established to remedy these evils, and for the purpose of making advances to the poor on deposited pledges, at a fair and equitable rate of interest; and it is remarkable that the British Dominions are the only part of Europe in which private pawn offices are allowed, or in which the profits are not applied in charity.

The success of the first experiment extended these establishments in Germany and France, and other parts of the Continent, so that at length they became an object of attention to the governments of those countries.

They have been, for years, established in all the provincial towns in France, under the control and direction of the Crown, and their management was regulated by the "Code Napoleon" in 1804, which states, "That no house of Loan or Security can be established but to the profit of the poor, and with the approbation of Government," and other provisions were made by a Royal Ordinance of Louis XVIII. in 1824.

The principle on which these establishments are formed, is "to relieve the temporary wants of the poor by advances of money upon pledges, securing them from rapacious and usurious exactions, and that the profits (after defraying the expenses and paying the interest of the capital employed) should become a fund for the benefit of the class of persons from whom they are derived, and appropriated to their maintenance and support, when sickness and disease prevent their pursuing their ordinary occupations."

In those countries, private individuals are prevented from carrying on the trade of a pawnbroker, the Ordinance declaring that the "object of the law is to lower interest to the poor, and to turn profit to the hospitals." It is at the "Monts de Piété" only that money is lent upon pledges; to them the poor man goes with perfect confidence that he will receive the fair value on the article deposited—that no advantage will be taken, either of his ignorance or necessity—and that he is contributing to a fund, which will comfort and relieve him in the day of distress and adversity.

In the councils of Laterán and Trent, and Fleury's and other Ecclesiastical Histories, the advantage of the "Monts de Piété" upon the industry, habits, and morals of the people, are so forcibly pointed out, and they appear so desirable in every large community, that it is surprising the public attention has not been directed, in these countries, to so excellent a plan for benefiting the poor.

It is proposed, that a capital be raised for the establishment of a "Mont de Piété," in connexion with "The Barrington Hospital and City of Limerick Infirmary," by debentures of 5*l.* to 100*l.* each, to bear interest at six per cent.

That the profits of the establishment shall, in the first instance, (after defraying the expenses,) be applied in paying the interest of the capital lent, and the surplus profits to be divided in equal shares, one in paying off the debentures, and the other (and when the debentures are paid, the whole,) in the maintenance and extending the benefits of the hospital; the funds of which would be thus so much increased, that the governors could enlarge the sphere of its utility, not only in giving relief and comfort to the sick and indigent, but in assisting them after their recovery or during their convalescence. It cannot have escaped the observation of those who attend a public hospital, that there occur many circumstances of distress to be relieved, besides the cause for which patients are admitted. Many persons are obliged to relinquish their trades, having consumed what they possessed in the hope of relief, and run into difficulties from which they are unable to extricate themselves; and how frequently does it happen that they are unavoidably dismissed from the hospital in a weak and infirm state, to return (perhaps to a large and wretched family) without the means of support, or strength to seek employment, and often without a home; and thus frequently causing a relapse, or establishing a diseased and weak constitution?

These are not speculative refinements, but truths drawn from experience and reality, and it is obvious that they must be felt with accumulated severity by such as have families dependent on them for support. Is not then the power of affording relief to such objects most desirable?

By the means proposed, benevolent persons will assist in a work of charity, without any injury to themselves, as the rate of interest is greater than they could receive in the public funds; the profits of such an establishment will ensure ample security, and being merely lenders

* One shilling lent and received in the week pays 1*d.* interest, and 1*d.* for the duplicate; this is 8*s.* 8*d.* interest on one shilling for a year—or, £. 8. 13. 4*d.* on a pound for a year—or, £. 866. 13*s.* 4*d.* on £.100 for a year—and this exclusive of compound interest.

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lenders of the sums for which they take debentures, incur no responsiblity, nor have they any share in an establishment conducted under the directions of the governors of the hospital, who are a corporate body and not individually responsible. Tradesmen and other persons may take debentures of even 5*l.*, and receive nearly double the amount of interest now received in the savings bank, and be at all times enabled to raise money on such debentures, as they will be received as pledges, and money lent thereon.

The confidence of such advantages following this proposed establishment, is not founded on the sanguine expectations of the writer, but in the result of a very minute and accurate inquiry into the effects which have followed the endowment of these institutions in France, Italy and elsewhere.

It is a confidence which all must feel who will take the trouble of inquiring into the general success attending a pawnbroker's business on the most limited scale. There is scarcely an instance of a pawnbroker's failure, or his name appearing in the Gazette; and their profits, in proportion to the capital employed, far exceed those of any other business whatever.

It may be said that this is an infringement on the business of others; the same objection would equally apply to a Joint Stock Bank as an interference with the ordinary bankers, or to a rival setting up in any other trade. In these instances the object is private gain, whilst this is for the relief of those from whom the profit is chiefly derived. In Dublin every pawnbroker pays 100*l.* per annum to the public establishments, under whose control they are placed.

The situation for the "Mont de Piété" is in the most central part of the city, with approaches from George's Quay, Baal's Bridge, and Mary-street.

The plan is thus briefly submitted, and, it is hoped, that as the blessing of the Almighty invariably attends any well-directed plan of charity and benevolence, the result will be equal to the expectation of the suggester.

Dublin, April 1835. *M. Barrington.*

Should you think proper to aid in the undertaking, you will please state what number of Debentures, and of what amount, you wish to subscribe for, by a letter to Matthew Barrington, 50, Stephen's-green, East Dublin; Daniel Barrington, George's-street, Limerick; or to Mr. John Allen, Register, Barrington Hospital, Limerick. No part of the sum subscribed will be called for until the arrangements are completed, and then only in instalments as wanted.

Mr. *Alexander Nimmo*, called in; and Examined.

Mr. *A. Nimmo.*

2180. WHAT is your profession?—An engineer.

2181. Have you been employed as a professional man in Ireland?—A good deal.

2182. In what part of Ireland?—In the West of Ireland.

2183. Have you been at Connemara?—Yes.

2184. Are you nephew to the late Mr. Nimmo?—Yes.

2185. Were you employed under him in the works he executed there?—Yes; in superintending the roads and bridges.

2186. When did the late Mr. Nimmo go to Connemara?—In 1822, to expend the money for the relief of the poor on the public works.

2187. Can you tell the Committee how much he expended?—I am not aware of the items for that country.

2188. Can you inform the Committee of the nature of the works he executed?—Principally roads; a road partly made about 12 miles from Outerard to Clifden; the rest of this road was made by presentment; the coast road from Galway to Clifden; a road through Joyce Country, and from Clifden to Westport; to Cleggon and to Roundstone.

2189. Have all or any of those roads been completed?—The Joyce Country road is completed.

2190. Is that the only one complete?—Yes.

2191. Why?—The stoppage of the grants; they were never sufficient to make all the roads we had in hand in the Western counties.

2192. Has not a grant been made last year for the completion of a road from Outerard to Clifden?—There was.

2193. Has that money yet been expended?—I believe not.

2194. Have you seen that road lately?—I have.

2195. In what state is it?—It is impassable as a road for carts at present.

2196. Is not the county surveyor at this moment employed in surveying that road?—He was when I was in the county, but I have heard since of their stopping. I have been written to.

2197. By whom?—By Mr. Martin the Member.

2198. Has he given any reason why?—No reason; he says the people are not at work. I think the prices given are too low; the contractors have given up.

2199. How

2199. How soon do you think that road might be finished?—There is one large bridge, and it would take some time; I think it would be finished in two or three months if exertion was used and better prices given to the people.

2200. Is the money granted for that purpose sufficient?—I am not aware of the amount.

2201. Was 4,000*l.* sufficient?—Yes; I think it was for that road.

2202. As to the Southern line of road from Clifden to Galway, that still remains in an incomplete state?—Yes.

2203. Would it not be a most beneficial road?—I do not know that any could be more so. It would open a vast extent of country at present totally useless and inaccessible; the seat of illicit distillation.

2204. In your opinion, what has been the consequence of the making of these roads to the country; what are the effects on the place, the inhabitants, and also in reference to the general revenue of the country?—The revenue of the country has increased from nothing; it was originally a great place for smuggling. Connemara cost the Government a great deal to protect it from smuggling; now the revenue has increased to nearly 8,000*l.* a year. Clifden is a large town built solely from the expenditure of the public money in it; there are about 300 houses there; I am not aware of the exact number. Roundstone is the next in size, and it may be well to remark, that it has sprung up on account of its fine harbour and the great extent of the fishery within the last four or five years, long after the public money was expended in that part of Connemara, solely from the resources of the country; and Tully is the next, principally built by Mr. Blake. The people are much improved in their habits and appearance; they have become a very industrious and peaceable race.

2205. Are there many other situations in which towns might rise if roads and communications were made?—If the coast road was finished, I think there would be one or two at Killkeran Bay, one at Ballydangan and at Castles Bay.

2206. Are you acquainted with the Pass of Ballydangan?—I am.

2207. Would it not be most useful to the people of that country and the people of the town of Galway if that Pass were cleared?—Decidedly of great advantage to both.

2208. Is there not great risk of life and property?—Yes; many lives have been lost at this Pass, and every tide some property of the poor boatmen.

2209. What would it take to remove the obstructions in that Pass?—I think 400*l.* or 500*l.*, according to Mr. Killsby's plan; but 200*l.* would clear it. A great deal was done to it by the late Mr. O'Flogherty of the Islands.

2210. Are you aware that the Board of Public Works in Ireland were willing to advance one-half?—They granted half.

2211. What prevented the work being done?—They required the other half to be raised by subscription or by the grand jury; the grand jury did not bring it before them; it appears they have no powers to make such a grant; only three-fourths was raised by Mr. St. George and Mr. O'Saughnessy; the other one-fourth could not be got in the county.

2212. Have you been employed in constructing any harbours or quays on the Western coast of Ireland?—None on the Western coast; I have been on the East coast and in South Wales.

2213. Might not many useful harbours be erected on the coast of Connemara?—I think a great many.

2214. For the purpose of the fishery?—Yes.

2215. Is there any fishery carried on now?—Not at present; no white fishing; but the herring fishing last year was immense.

2216. Where did they carry them?—To Galway by boats, a great number of them to Skerries and the South of Ireland.

2217. Have they roads to carry them?—Yes, they have roads to carry them by means of horses and baskets and carts from Roundstone through Joyce Country and to Galway; a great number of carts came there, but they so cut up the road it was impossible to travel after some time.

2218. What road?—The Joyce Country road and the Galway road; part of the new line was open; it has been nearly destroyed, so great was the traffic.

2219. Have you lately been in the county of Galway and at Connemara?—Within the last three months.

2220. Have you received any communication within the last few days as to the distress?—I received a letter this morning.

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2221. Have you any objection to read that letter?—No; I received one from Roundstone; they wished me to find out the secretary to the Association for affording Relief to the Irish Poor.

[*The Witness reads the following Letter:*]

TRY if you can find who has succeeded Mr. Hyet as secretary to the Irish Relief Association, and lay the case of this district before them. The people are on the borders of actual famine already, and two months are yet to pass before they can expect to have any potatoes; add to this, that in thousands of instances the seed sown has totally failed. I examined J. King's two plots on Friday, and there is not a single seed growing. Get Mr. Mortin to assist you in this, as he leaves this to-morrow, and use every exertion you can to have relief here instantly. Should the means be sent, the priests and I will see that none but the most necessitous get it, and I shall see that it is usefully and beneficially laid out.

Send a map and estimate of the Murvy road, and as you have the map, show it to Mr. Spring Rice, and perhaps he would get the Board of Works to do it, which, if done immediately, would relieve the poor people at once.

Roundstone, May 31, 1835.

2222. Whence has arisen this distress; from the want of potatoes?—I think it arose principally from their being obliged to dig potatoes earlier last year, in consequence of the quantity being short.

2223. Might not the same circumstance take place this year?—Yes.

2224. How can you account for the failure of the plants?—I cannot speak to that; I suppose the early damp; the great quantity of rain that fell.

2225. The roads in Connemara, notwithstanding the large grants that have been made, have remained for eight or ten years in a state impassable, so that there is no continuous line of 25 miles which is open to the public?—Some have remained totally useless; there is no line of 25 miles of new road yet made.

2226. How many miles altogether in Connemara have been made by public grants?—Something more than 60; there has not been more than 60 made of workable road, partly made about 90 miles.

2227. If these roads had been completed seven or eight years ago, would not the improvement of the country have been very much advanced?—Decidedly, much advanced.

2228. You said the roads were impassable, and that some of them were not finished?—Yes, a few miles in the centre are not finished; they did some last summer, but they did not get on at all well; the roads are still useless.

2229. Is the road passable between Joyce Country and Lenan to Clifden; is that road passable?—It is passable, but it is not a good road; the old road is very hilly.

2230. Are not the roads that were then made, are they not now in fact in a state of great want of repair?—A great want of repair; they have almost become useless.

2231. With whom is the fault?—I am not aware; the repairs were always done with the grants for making.

2232. Have the Board of Works the power of repairing these roads and charging the county by compulsory presentments?—They have, and have done it in many instances in Connemara.

2233. Why did they not keep these roads that were made in repair?—The road that was made they have repaired; that was the Joyce Country road; the repairs were so long delayed that the road was totally useless for six months.

2234. That is the road completed?—Yes; open to the public.

2235. But the roads that were not completed they did nothing to?—Nothing.

2236. The road was not well drained?—The road was sufficiently drained through Joyce Country, but it was left for seven years without being repaired, and being a gravel road it soon wore out. The traffic was immense during the fishery season, and it is during the winter you might see a line of 20 or 30 carts coming loaded with fish, going to the places by Cong and Ballinroke.

2237. Have you any suggestion to make?—Nothing further than that the completing the central line and the Southern coast road, of which great part has been made, thus completing the whole line round the country from Galway to Westport would create new towns, and vastly increase the Revenue.

2238. You stated you knew the East coast of Ireland, do you know Ballytague Bay?—Yes.

2239. You know the Saltee Islands?—Yes.

2240. Do you know the Tower of Hooke lighthouse?—Yes.

2241. And the Connebey and the Tusker lighthouses?—Yes.

2242. Are you aware that the bay called Barrystown Bay, is the bay in which almost

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almost every vessel that is in danger is wrecked?—Several wrecks have taken place there; some packets were lost on the Tower of Hooke Point.

2243. Are you aware of the situation; you say you have heard of St. Patrick's Bridge?—Yes, I have been at it.

2244. Have you seen the small pier of Kilmore, at the commencement of St. Patrick's Bridge?—Yes.

2245. Are you not aware that if that pier was made a little larger, a little further out, that the boats now may be afloat, and it might have a great tendency to save the vessels from being lost?—The vessels missing the Tower of Hooke in making the harbour of Waterford with this as a lea-shore, would no doubt find shelter in the harbour if it was extended.

2246. Would the proposed embankment give water to vessels at every period of the tide?—I am not aware of the depth of the water in the bay there.

2247. You are aware of the small harbour?—Yes; I know an application has been made from the Fishery Board for that.

2248. You have heard of the steamer, the Water Witch, being lost last year?—Yes.

2249. That Water Witch was lost just in the causeway of St. Patrick's Bridge, was she not?—Yes.

2250. Do not you suppose that if a sufficient harbour was there, so that boats could at all times of the tide be afloat, that it would have a great tendency to save those vessels that are led in either by wind or mistake into the Ballytague Bay?—No doubt.

2251. If a vessel gets into that bay she is so completely blocked in by the Tower of Hooke and all that coast, that you suppose it would be very difficult for that vessel to get out?—With the wind blowing in-shore she could not, for there is a great set of the tide over the bridge.

2252. Have you heard of vessels mistaking the Tower of Hooke for the Saltees, and by that means supposing themselves clear of the Irish coast, instead of which the vessel was standing in to St. Patrick's Bridge?—I do not know.

2253. From your local knowledge, do you suppose it possible?—Yes; I think it is in thick weather, if they could not see the Connebey light-ship.

2254. Do you recommend the establishment of a safety harbour in this locality?—Not of a safety harbour, such as at Dublin and Howth, but a small landing pier, so that a vessel could run for it.

2255. Would such a pier as has been contemplated in the questions offered to you, give water to vessels of 400 tons burthen?—That would depend much on circumstances, such as the depth of water in the place, to make what is called a safety harbour; it would require to be of sufficient depth for a ship of that tonnage.

John Hyacinth Talbot, Esq., M. P.; Examined as follows:

J. H. Talbot, Esq. M. P.

2256. HAVE you any papers to lay before the Committee?—I would just state this to the Committee—[*Paper handed in.*]—

To His Excellency the Marquis WELLESLEY, K. G., Lieutenant-General and General Governor of *Ireland*;

The humble MEMORIAL of the undersigned, Fishermen, Boat-Owners and others of the Parish of Kilmore, and County of Wexford,

Respectfully represents,

THAT a Fishery has been carried on here upwards of eighty years under peculiar disadvantages from the want of a proper harbour for boats adapted to the employment. A small safety-wall or pier was first built in 1795 by the fishermen themselves, with very limited assistance from the gentry and farmers of the immediate neighbourhood: since that period the number of individuals pursuing solely the avocation of fishermen has greatly augmented, and a corresponding increase of the population in the vicinity naturally followed: That at the present moment about sixty craft of various kinds are employed, the crews of which, with their families, amounting to upwards of six hundred souls, are entirely depending on the success of the fishery for their subsistence: That the larger class of boats now here are laid upon the beach eight months in the year, having no shelter or asylum to protect them when the weather is at all boisterous, whereby their crews are great sufferers; and the smaller ones are likewise retarded, though in a lesser degree: That at this fishery lobsters, crabs, turbot, haddock, cod, mackerel, bream, gurnet, pollock, ling, eels, mullet, plaice, soles, pilchards and herrings are caught here in great abundance in their respective seasons: but from want of boats sufficiently large to convey them to market, those persons who take them labour under serious disadvantages, comparatively with other

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fishermen: That if a sufficient place of safety was erected, large and well-adapted boats would immediately be placed in the fishing trade. In curing and preserving fish, salt is absolutely necessary, and that article has now to be carted fourteen English miles, which enhances its price to the consumer nearly 100 per cent.: the same remark will in some degree apply to coals, the only fuel to be had here; whereas if the solicited improvement took place, small vessels would come direct, and the inhabitants would be supplied with those necessaries of life at moderate prices at their own doors.

Your Memorialists further respectfully represent, that in the contemplated extension of the pier, important benefits might be conferred on the shipping interest by means of its affording a safety to vessels, leaky, embayed or otherwise in distress; even in its present state within the past thirty years, upwards of forty vessels have been assisted, and many human lives preserved. Vessels that became wrecks on the adjoining coast could have been brought safely into this place, had it been adequate to their reception. Instances have occurred when men have been taken from desolate rocks by the intrepidity of the fishermen, and a very recent event has amply tested their bravery and humanity. Were they in possession of large boats, much more effective aid could be rendered to lives and property in any case of emergency. Your memorialists cannot avoid remarking that although the population of this place is numerous and dense, their industrious and peaceable habits are proverbial; and when other parts of the country have been unhappily disturbed, and large and expensive bodies of forces found necessary for the preservation of the public peace, riots or tumults here have been unknown; nor within a space of upwards of thirty years has there a single capital conviction taken place within several miles around. The sum of money required to carry into effect the desired improvement would be comparatively small, when contrasted with grants made to other places. Wherefore, your memorialists humbly pray your Excellency to take the matter into your immediate consideration, and respectfully urge the necessity and expediency of your causing an appropriation to be made of a fund adequate to accomplish the object sought for by your memorialists. And your memorialists will ever pray.

Sir, Office of Works, Dublin, 4th July 1834.

With reference to the Memorial from the Inhabitants and Fishermen of Kilmore for a Government grant of 1,500*l.* for the construction of a pier on the coast of that place, I beg leave to report that it is extremely probable that all the good effects stated in the memorial would be produced by the construction of such a work; but I have every reason to believe that there are no funds at the disposition of the Irish Government which could be applied to the object.

The Board of Public Wotks, however, have a grant fund by the Act of 1st & 2d William IV. cap. 33, which enables them to recommend to the Treasury a grant to an extent not exceeding 1,000*l.*, of one-half of the estimated cost of a fishery pier on the coast, when the other half shall be deposited or secured, provided the work shall be approved.

Should the parties be desirous of availing themselves of that provision, they should make their application to this Board.

I have, &c.

Right Hon. E. J. Littleton, &c. &c. &c. (signed) *J. F. Burgoyne.*

I think it would be beneficial, not only to the locality and fishing people there, but of the greatest importance to Liverpool, London and Bristol particularly, to have such a harbour. About 1,500*l.* or 2,000*l.* might be laid out there to great advantage, so that boats may be always afloat to save merchant vessels that are led into that bay.

2257. Would the improvement that you suggest consist in a safety harbour, such as would afford to shipping in every state of the tide the power of floating?—I should think it would; and by an outlay of about 2,000*l.* any vessel could be saved, and it would enable boats to be afloat to prevent larger vessels going ashore, as there is water for any ship 25 fathoms from the present small fishing pier, built by the fishermen themselves.

2258. Have you turned your attention to the fisheries on that coast?—There is a very extensive establishment of fisheries, and in consequence of the small pier they have, they are not able to fish more than three months in the year, taking it altogether.

2259. Would the erection of a suitable pier and safety harbour be a great encouragement to the fisheries in that district?—Very great, indeed.

2260. Would you consider it desirable that a commission should be appointed by Government, as has been suggested by the Board of Works in their last Report, for the purpose of inquiring into the fisheries in Ireland generally?—It would be one of the greatest advantages possible to the whole country.

Lunæ, 8° die Junii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Colonel *Henry Thomas*, called in; and Examined.

2261. YOU are a colonel in the army?—Lieutenant-colonel.

Colonel *Henry Thomas.*

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2262. Have you any suggestion to make to the Committee connected with the subject with reference to them?—I would beg to represent to the Committee, that a petition was presented to Government, in January last, for a "grant" in aid of the construction of a bridge over the Bandon River, and that the Lord Lieutenant, in reply, admitted the great public utility of the work, and expressed his great satisfaction at the amount of the sum entered into by private subscription, and also expressed the satisfaction it would give his Excellency to be able to recommend a grant for one-half the sum required to complete this work; but that the Act of Parliament, by which funds are provided for Public Works, is not applicable to the case in question. In furtherance of this opinion, the Commissioners of Public Works in Ireland, to whom the question was referred, declared that the sums to be appropriated by way of "grant" were applicable to remote places only, where there was a thinly scattered population, and no means of effecting such necessary improvements by individual subscriptions, and that Kinsale, from its population and locality, could not be considered to come within the meaning of the Act of Parliament. I would now, on behalf of Kinsale, beg leave to suggest, that although the population does amount to upwards of 7,000 persons, it has long been in a very impoverished and deteriorated state, from the want of that power which wealth commands to overcome the barriers that nature has interposed between it and the circumjacent country, more particularly to the southward, where the Bandon River, expanding its surface to a breadth of upwards of 1,000 feet, cuts off this large and populous town from advantages to which by its locality it is entitled, whether viewed in connexion with the capital of the country as a place of transit, or combined with the acknowledged capabilities of its harbour as a place of export, or as affording in itself a market for the varied productions of an highly agricultural district of country, extending to the south as far as the "Old Shad," and to the west as far as Baltimore Harbour, including the towns of Skibbereen, Roscarberry, Clonakilty and Timoleague, with the villages of Balliniscarthy, Kilbritain and Ballinspittle, and comprehending an area of not less than 180,000 acres. To effect a junction with the southern banks of the river, more in accordance with the rapidly advancing condition of society than is afforded by the present imperfect ferry, and thence to unite in a direct line the whole western coast of the county of Cork, is an object of vital importance to the town of Kinsale; and in order to facilitate the accomplishment of so desirable an object, the inhabitants, with the most patriotic spirit, have subscribed a sum of about 4,000*l.* towards the construction of a bridge; and they confidently hope, that when it is recollected this town has suffered more than any other from the removal of the dock-yard, and all other public establishments, and consequent stagnation of commerce, its fair claim to consideration will be admitted, and that a sum of money equal to that subscribed by the inhabitants will be granted in aid of a work of admitted general utility.

2263. Will not the county undertake its construction?—I have understood the county had not the power.

2264. Why not; how is it circumstanced; what reasons have you for imagining the county has not the power?—I presume, that had it been attainable from this source, the Government would not have been applied to; it is also, I believe, (for I am a stranger to such matters) attended with greater difficulty to obtain the concurrence of the grand jury to so large a grant from the county for the construction of a bridge, than for a great extent of road, the one being so much more expensive than the other in proportion to the surface it embraces.

2265. Would the bridge go over a river that divides two counties?—No.

2266. What is the sum necessary?—It is calculated it could be done for 9,000*l.*

Colonel *Henry Thomas.*

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2267. Your suggestion was, that the Government should give 8,000*l.* to 1,000*l.* subscribed by individuals?—No, 4,500*l.*, being a moiety of the estimated cost.

2268. The harbour is not in a situation to require improvement?—No; the harbour is a better harbour than that of Cork; the largest ships can moor alongside the quay; whereas they can go no farther up the Cork River than Cove.

2269. To what do you attribute the decay of the town of Kinsale?—To the removal of the national establishments that formerly existed there, and consequent withdrawal of a large expenditure and circulation of public money.

2270. It was formerly a Government depôt?—Yes, and also had a considerable dock-yard, where men-of-war were repaired.

Mercurii, 10° *die Junii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *Charles Tarrant*, Civil Engineer, called in; and Examined.

Mr. *C. Tarrant.*

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2271. ARE you the engineer of the Royal Canal?—I am.

2272. What is the extent of the Royal Canal in its direct line and its several branches?—Its direct line is 90 miles; it has two off-branches, one at a distance of a mile from the Broad Stone, two miles in length, entering into the river Liffey; a second branch from near Killachie to the town of Longford, the distance five miles. This town has been improved considerably in consequence of the canal; there has been one-fourth added to its extent in new and permanent buildings within the last four years; there has also been the introduction of two branch banks.

2273. Can you state the returns of the trade upon the canal?—I am not aware of the amount, but the rate is three-halfpence per ton per mile.

2274. Have any surveys been made for an extension of the canal?—Yes, there have been two surveys made by the late Mr. Killally, one turning from Blackshade to Athboy and on to Kells; this line would be of the utmost importance if executed, both as giving employment in cutting turf, the reclamation of a large tract of bog, and a considerable trade would be expected. The extent was about 28 miles, and the cost, I think, was about 79,000*l.*

2275. What was the next line?—The next line was near Tarmunbarry, by New Town Forbes, Mohill, and on to Drumshambo and Lough Allen. I think the distance was 34 Irish miles, and the cost was 206,000*l.* I have surveyed several lines, one from Tarmunbarry to Roscommon, a distance of 12 miles, the cost of which would be 43,000*l.* There was another line also from Lough Ree to Roscommon, a distance of about five miles, and I think the cost would be about 30,000*l.*; and one from Lake Bordany by Canedoe to Elphin and Lake Gara, the map and estimate of which I hand in. I beg to observe, that I have also the maps and sections of the two other lines, one of Mr. Killally, and one of my own.

2276. Will you produce them?—[*The Witness produces the Maps.*]

2277. Was there any application made to the Board of Public Works with respect to these surveys?—None.

2278. Was there no application for a loan of money?—There was.

2279. Was that application successful?—No, it was not; we could not obtain the money.

2280. Why was the money not to be obtained?—There was no Board of Public Works at that time, but only the Loan Commissioners, and their funds were exhausted. They gave 42,000 *l.* to the canal at Ballinasloe. There was an application made to the commissioners before the Board of Public Works were appointed.

2281. Was any application made to the present Board of Commissioners?—I believe there was, but I do not know the particulars.

2282. Would all these lines, the surveys of which you have mentioned, be very useful to the country?—I think the last one would be very useful from Carnadoe Water to Lough Gara.

2283. How many Irish miles is that?—Seventeen and a quarter Irish miles, equal to nearly twenty-two British, at a cost of 64,204*l.* 2*s.* 8*d.*

2284. You state that you consider that line of canal would be very useful to the country?—It would.

2285. Will

2285. Will you mention your reasons for considering that line in particular would be useful?—My reason is, that instead of navigating the river Shannon, you would navigate an inland cut, or still-water navigation, and where you avoid the uncertainty of a river navigation.

2286. Does it run through some of the richest land in Ireland?—Yes, part of i runs through very rich land; I suppose there is not finer land in Ireland.

2287. In times of temporary scarcity of provisions in Dublin, have not you principally depended upon the county of Roscommon to supply you?—We have.

2288. Do you then think that the situation of that canal would render that supply more easy?—Certainly.

2289. So that hereafter it would be impossible that Dublin could suffer so much from the scarcity of provisions?—Certainly, particularly with regard to potatoes. In the year 1828, but for the supply from the county of Roscommon, the counties of Dublin, Wicklow, Meath and Kildare would have suffered very much.

2290. You are aware that there is a very material difference in the returns of the tolls of the Royal and the Grand Canals?—Yes; there is a great difference in their extent, and the tolls of the Royal Canal are one-third lower than the Grand Canal.

2291. Do you consider that this extension into the rich county of Roscommon would increase, in a very great proportion, the trade upon the Royal Canal?—I do, very much, for it would bring the land into potatoe tillage; and, consequently, into grain; there would also be an internal or home trade, such as turf and bricks, particularly in the former, to Elphin, where fuel is very scarce.

2292. Is that a district of country which is now almost entirely given up to grazing?—Yes.

2293. How would you propose to raise the 64,000*l.* necessary for the extension of the Canal?—I have not considered that.

2294. Can you at all inform the Committee what would be the probable annual income derived from the tolls with this extension?—I think it would be equal in proportion to any part of the Shannon.

2295. What would be the increased return per centage upon the capital?—I think it ought to pay three per cent. on the money laid out, and four per cent. for a sinking fund from the time the line would come into operation.

2296. Would it yield an annual income equal to six per cent. on the money advanced?—I consider it certainly would.

2297. Upon that branch alone?—Yes; for you take in a line of country eight miles on each side of the proposed cut.

2298. You take in a great portion of Sligo, Mayo and Roscommon?—Yes.

2299. Would the Canal be navigable for other boats besides steam-boats?—It is not intended for steam-boats.

2300. The line passes through several loughs?—Luggage boats could navigate these loughs, as I proposed forming a track-way through them. The loughs are very trifling; perhaps the extent of loughs altogether is not above three miles; indeed, I may say two miles. An embankment may be raised on one side, and a track-way made as on the side of the rivers.

2301. So that the loughs may be pulled through?—Yes; they pull up to Grange Lough, which is four miles.

2302. What is the highest point?—The highest point is Lough Gara.

2303. What is the highest level above the Shannon?—I think it is 84 feet from the surface of Lough Gara to the bottom sill of the lower lock in Carragen Lake.

2304. Have you made a Report to the Royal Canal Board upon the subject of this line?—I have.

[*The following Report was then read:*]

Sir, Dublin, 28th May 1835.

In pursuance of the Board's Order, I herewith transmit a Map, Section and Estimate of the proposed Canal between Lough Gara and Carnadoe, near the river Shannon. This line takes in the rivers and lakes between these points, and is 17¾ Irish miles, (equal to nearly 22 British), in length, passing within about one mile of Elphin, and two of Balnagar and French Park, in the county of Roscommon. The river from Lough Gara to Bridogue Bridge to be made navigable, by widening and taking off the sudden bends on the north-east side of it; from thence to Lough Bally. The line departs from the river where it is circuitous, and shortly I propose navigating Lough Bally, and proceed from thence to the Turloughes of Mantua; after passing this part, the greatest difficulty presents itself through stiff clay, where there is an average sinking of 41 feet for about half a mile in length, at the termination of which there is a short embankment and a double lock. The line is favourable on to

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Lurgan or Ballyhooter near Elphin; this distance is about ten miles, and within one mile of Elphin. The cost is 44,920*l.* 18*s.* 4*d.* The line proceeds much more favourable from thence to Drummullen, navigating Cloonaker Lake and River, and on to Carrigen Lake, where the locks terminate; and to navigate this lock as far as Carnadoe Bridge or river, which communicates with the Shannon, the cost of which will be 18,406*l.* 14*s.* 2*d.*, from Elphin to this point, making the total cost 64,204*l.* 2*s.* 8*d.* for the entire line. I further wish to remark that the beneficent results arising from the drainage of ground adjacent to where the Canal will pass, may be calculated at a very considerable extent.

To Samuel Draper, Esq.
Royal Canal House.

I am, &c.
Charles Tarrant.

2305. Have you also furnished an estimate of the expense?—I have.

[*The following Estimate was then read:*]

AN ESTIMATE of a proposed CANAL from *Lough Gara* to *Carnadoe Bridge* and the River *Shannon*; to have 6 Feet in depth of Water, and 18 Feet broad at bottom, and 36 Feet at top, Water Surface.

Perches.	Depth or Height. Ft.	In.		RATE. £.	s.	d.	AMOUNT. £.	s.	d.	TOTAL AMOUNT. £.	s.	d.
			EARTH WORK:									
120	3	–	In widening and deepening the river between Lough Gara and Bridogue Bridge - - -	1	3	–	138	–	–			
540	3	6	Ditto - - from Bridogue to Balla Bridge, and continued to the west end of Balla Bog - -	1	10	–	810	–	–			
280	12	–	Sinking through Balla Bog, and on to Lough Gara, in departing from the river - - -	3	10	–	980	–	–			
144	6	–	In dredging through Lough Balla	2	6	–	331	4	–			
440	20	6	Sinking in Cloonkwin Bog - -	8	10	–	3,740	–	–			
220	18	9	Sinking in moor and clay through Mantua Turloughes - -	17	11	–	3,861	–	–			
280	17	–	Ditto - - ditto - - ditto - -	15	–	–	4,200	–	–			
164	41	–	Ditto - - in clay through Athrow East and Raheen - - -	82	–	–	13,530	–	–			
146	18	–	Sinking in clay through Athrow East, to be applied to embankment in Creive - - -	17	10	–	2,555	–	–			
336	5	6	Sinking through Gurthnacranow to the first lock, near the mearing of Cherryfield - - -	2	17	–	957	12	–			
			Eight miles of track-way, forming and gravelling, from Lough Gara to the first lock - -	64	–	–	512	–	–			
148	10	9	Sinking in clay and moor between Cherryfield and Lurgan - -	4	16	–	710	8	–			
			To purchase of ground from Lough Gara to road at Lurgan	-	-		672	–	–			
			MASONRY:									
			Two double locks, with bridges and lock-houses, &c. - - -	-	-		6,000	–	–			
			Three public road bridges - -	-	-		1,300	–	–			
			One accommodation bridge -	-	-		300	–	–			
			Three tunnels, six feet wide -	-	-		240	–	–			
							40,837	4	–			
			Contingencies & superintendence on the foregoing, at 10 per cent. - - - - - -	-	-		4,083	14	4			
			From Lough Gara to near Ballyhooter, an extent of 10 miles, and within 1 ¼ mile of Elphin, amount - - - - -	-	-					44,920	18	4
			EARTH WORK:									
948	4	8	Sinking in clay, moor and gravel, through Lurgan, Emlough, Curmular, Cumun and Creve -	1	11	4	1,485	–	–			
32	6	–	Of sinking in clay through Drumullen - - - - - -	6	–	–	192	–	–			
160	7	4	Ditto - - bog through Coolmeen	2	1	–	328	–	–			

AN ESTIMATE of a proposed Canal from *Lough Gara* to *Carnadoe Bridge*, &c.—*continued*.

Perches.	Depth or Height.		RATE.	AMOUNT.	TOTAL AMOUNT.
	Ft. In.	EARTH WORK—*continued*.	£. s. d.	£. s. d.	£. s. d.
32	7 6	Of sinking in clay at entrance of Gloonahee Lake	4 – –	128 – –	
480	3 6	Of embankment to be formed for a track-way south of Gloonahee Lake	– 15 –	360 – –	
152	8 –	Of sinking in clay and moor through Glooncloss namore	5 10 –	836 – –	
120	2 9	Of embankment to form a track-way through Clooncloss namore Lake	– 15 –	90 – –	
104	11 6	Of sinking in clay through Cloonglossenybeg	8 15 –	858 – –	
40	4 –	Of embankment in ditto	9 5 –	370 – –	
86	8 –	Of sinking in red bog	2 7 –		
36	7 –	Of sinking in clay at the entrance of Clavrigan Lake	5 5 –	189 – –	
75	3 6	Ditto – – in clay and gravel on each side of Carnadoe Bidge	3 – –	225 – –	
		Eight miles of track-way be formed and gravelled, from the second lock to Carragan Lake	64 – –	512 – –	
		To purchase of ground from road at Lurgan to Carragan Lake	– –	1,375 – –	
		MASONRY:			
		One double lock, with lock-house	– –	2,600 – –	
		Two single locks, with ditto, &c.	– –	3,100 – –	
		A harbour to be formed at Lurgan	– –	600 – –	
		One public road bridge at Carnadoe	– –	800 – –	
		Four – – ditto – – ditto	– –	2,000 – –	
		Two accommodation bridges	– –	600 – –	
		Three 12-feet tunnels	– –	600 – –	
		One 6-feet – – ditto	– –	80 – –	
				17,530 4 –	
		Contingencies & superintendence, at 10 per cent.	– –	1,753 – 4	
		Expense forming line from Lurgan to Carnadoe	– –		19,283 4 4
				£.	64,204 2 8

2306. Are you acquainted with any of the tributaries flowing into the Shannon?—I am acquainted with the Boyle Water.

2307. Would you propose to join the Boyle Water with the Shannon?—It falls into the Shannon at present.

2308. Is it navigable to where it falls into the Shannon at present?—It is navigable; but the certain obstructions which require removal, such as gravel shoals, ledges or rock, the expense of which has been estimated by Mr. Rhodes at something about 5,000*l*.

2309. Could you not improve that navigation?—Certainly.

2310. You have seen the evidence of Mr. Mullins, relating to the Boyle Water?—I have.

2311. In his evidence, he says, that for 6,000*l*. he could extend the navigation 40 miles?—I think that is impracticable.

2312. Do you think that estimate is completely erroneous?—I certainly think it could not be done for 6,000*l*.

2313. Are you aware that the only portion of the Boyle River which can be considered navigable is from the Shannon to Lough Key?—Certainly.

2314. You are aware that the river is not navigable from Lough Key to Boyle?—Certainly not.

2315. Nor from Boyle to Lough Gara?—No.

2316. So that the estimate of Mr. Mullins must have been a mistake?—I should think so.

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2317. Would this canal, in the line you propose, run parallel to the Boyle Water, or within any considerable distance of it?—No, it runs in a westerly direction from Carnadoe to Lough Gara, through that portion of the Maghana of Roscommon, known as the Talsh district.

2318. What is the distance from the Carnadoe River to the Boyle River up the Shannon?—It may be about 12 miles.

2319. Then there would be from the Boyle Water to Lough Key, what distance?—About six or seven miles.

2320. Then from Lough Key to Boyle, I believe, is somewhere about four miles?—Yes.

2321. What is the distance from Boyle to Lough Gara?—About seven or eight miles.

2322. Looking to the general interests of that district, and with a view also to the relative expense of both undertakings, which should you consider most desirable, this canal with respect to which you have given evidence, or the perfecting of the Boyle Water navigation?—If the cost of the two undertakings were equal, I should think the one I have laid out would be preferable; I cannot say what it would take to make Lough Gara navigable to Boyle.

2323. Would you get any additional country in the line by the Boyle Water being rendered navigable?—Certainly not; it would confine itself to Lough Key. The other line goes through the interior of the country.

2324. Would the proposed canal afford increased facilities for draining the district?—It would, particularly in the neighbourhood of Mantua; I suppose it would drain there at least 400 or 500 acres.

2325. In your opinion, would it not be just that inasmuch as the land would be so benefited, that the proprietors should be charged with a certain portion of the outlay for that purpose?—I do, for I think the proprietors all through the country where that line passes through would be equally benefited.

2326. At all events, that they should pay a fair assessment, to be ascertained by means of a jury?—Yes.

2326*. You think that would be fair upon the landlords?—I do.

2327. Are you aware whether any one of the landed proprietors, who would be very much interested in this improvement, is willing to come forward to assist in defraying the expense?—I have no doubt that Mr. Grace, at Mantua, would be very willing to do so.

Captain *George Harris*, called in; and Examined.

Captain G. Harris

2328. HAVE you any suggestion to make to the Committee respecting the reclaiming of waste land in Ireland?—I have.

2329. Will you have the goodness to state it?—It is upon the subject of the growth of plants in the bog lands of Ireland, as substitutes for hemp and flax. It appears by Custom-house Parliamentary Returns, that the importations from Russia, Holland and America into England, in the years from 1814 to 1823 inclusive, are as follows:—

Hemp - -	5,135,804 cwt. - - -	£. 9,198,762
Flax - -	4,297,953 cwt. - - -	11,595,906
Flax or Linseed,	12,032,715 bushels - -	5,264,391
Linen Yarns	- - - - - -	916,192
Manufactured Linens	- - - - -	1,015,119
		£. 27,990,370

I may also state as a fact, that during the War one only out of our four royal rope-yards paid 11,000,000*l.* in 14 years to Russia for hemp. This enormous (and still continuing) expenditure by Great Britain for the exclusive benefit of foreign powers is surely unwise and evil policy, when I am prepared to prove that so vast a commerce may be thrown into Ireland, our settlements and colonies, and that thousands of the population of Ireland, the Coast of Africa, the East and West Indies and the Canadas might be advantageously employed, to render the mother country independent for the supply of these substances. My reasons are as follows: 1st. The fibrous material made use of by me, such as the Phormium Tenax, Musa Textilis, Urtica Tenacissima and Pita or Silk Grass, with numerous other plants of the same genus, are now growing in her settlements and colonies exuberantly

exuberantly. 2d. The fibres thereof are much stronger, and can be made softer than either hemp or flax. 3d. The fibres are so tough and so divisible, that they are applicable to the making of the strongest cable and the finest fabrics. 4th. By the use of them, the produce of the British settlements and colonies are consumed instead of that of foreign lands. 5th. That, measure for measure, it exceeds, not only greatly in strength, but is 20 per cent. lighter, by which ropes of less dimensions may be used, thereby causing a saving, not only in stowage, but in the size of blocks; and 21 same class vessels could be rigged from the same quantum of material as is now required for 20. 6th. No rotting or maceration in water is used to get rid of the pulp or coating which covers the fibres, as in the case of hemp and flax, to get clear of the ligneous particles, by which not only the fibre in general is deteriorated, but the strength thereof rendered unequal by the impossibility of making the process alike in all its parts; cordage made thereof supporting in one part of a coil a strain of five tons, and in others perhaps not more than four or even three, so that in fact the whole length of the coil when rove, can only be calculated at the lowest resistance. Little or no dependence can be placed on such cordage; for seamen, knowing that a rope of certain dimensions ought to bear a certain strain, have a fallacious and too frequently fatal confidence, and not only lose their lives, but their vessels also. 7th. The Phormium Tenax and other plants are easy to cultivate, and may be grown in any quantities in the South of England and Ireland, especially by the sides of rivers in large or alluvial soils, by which a large population may be employed, and thousands of acres now lying waste may be brought into cultivation, producing those riches which now greatly benefit Russia. 8th. These substances are all perennial, not like hemp and flax, annuals; therefore requiring less labour in culture, and producible by Englishmen; thereby making England altogether independent of the caprice of foreign markets.

2330. Will you state the names of the plants which you propose to substitute for hemp and flax?—They are called Phormium Tenax, Musa Textilis, Urtica Tenacissima and Pita or Silk Grass, and the White or Silk Grass. In all there are about 38 varieties of them. In order to prove that they can be manufactured into linen, I have an affidavit of a manufacturer at Barnsley, and I also beg to produce some specimens of the linen yarns which he refers to in his affidavit.—[*The Witness produced several specimens of linen yarns and manufactured linens, made from the plants above named.*]

2331. Are there specimens from all the varieties of plants you have named?—Not all, but several of them.

2332. Are these plants in growth at the present moment?—Yes; I will also produce some leaves cut from plants which were grown in my garden within this fortnight, one half in fibre and the other half left out of fibre. This is a specimen of the Phormium Tenax, reduced to a thin yarn for fine purposes.

2333. Have you tried the growth of any of these plants in Ireland?—Yes; I have been in correspondence with Mr. M'Cabe, and I rather think he has got a plantation of it of about an acre; but within the last two years I have dropped the correspondence, and will not speak positively of that.

2334. In what part of Ireland does he live?—Within ten miles of Dublin, at a place called Stackpool.

2335. Have you yourself tried the growth of these plants?—The Phormium Tenax and the Musa Textilis I have.

2336. Have you tried them in bogs?—I know they will grow in bogs; the Phormium Tenax is peculiarly adapted for bogs; it is termed the "Bog Lily."

2337. You have no doubt it would be successful if adopted in Ireland?—I have no doubt it would be successful, particularly in the South of Ireland.

2338. Have you been in Ireland yourself?—I have.

2339. Have you examined any of the bogs in Ireland, with a view to their reclamation or improvement?—I cannot say I have particularly examined them, but I have not a doubt that wherever a bog is, these plants will thrive.

2340. Have you not a patent yourself for the manufacture of these substances?—I have two patents; one for the making of rope and sail-cloth from these plants, and the other for making flax; that flax from the Phormium Tenax in particular, so perfectly like silk, that you would hardly know the difference.

2341. Is there a sale for those articles?—A great sale.

2342. It is going on now?—Very much. Mr. Wilson, a manufacturer of Barnsley, has above 100 mills at work. I have had these specimens from Barnsley direct, within a fortnight or three weeks.

Captain *G. Harris.*

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2343. Have you endeavoured to cultivate the plants yourself?—I have. My object was to impress the company that was formed with the importance of it, and I proved that one acre planted with the Phormium Tenax would produce more flax than three acres planted with the present flax plant.

2344. Have the plants produced any seed in this country?—No, there is no occasion for seed, for they increase and multiply themselves at the roots, which are divisible. You break off the roots and transplant them again.

2345. When you say it is divisible at the roots, does it throw up suckers?—No. It comes up like a fan, and if you want to make a number of plants from the mother root, you take it up at the spring of the year, and you take off the fan plants and transplant them.

2346. At what time do you put them in the ground?—In the autumn.

2347. Can you state to the Committee that this plant has been grown with success in any bog in Ireland?—I can positively state that Mr. M'Cabe has written to me several letters on the subject, and in one he told me that he had cut above 300 leaves from the mother plant, a specimen of which he sent me, and they were seven feet long in a twelvemonths' growth.

2348. Can you state to the Committee the nature of the soil on which it grew?—I cannot, but I believe it was in a damp soil.

2349. Can you state to the Committee the nature of the soil which would be required in your opinion for the successful growth of these plants?—On all alluvial or boggy land, particularly near to the sea, they thrive the best.

2350. Alluvial land, subject to irrigation?—Yes; they will grow in the water in fact. They do grow in the water in their native climate, New Zealand; you may run your boat in amongst them.

2351. Do they require considerable nourishment?—Yes, chiefly water.

2352. Do they require much attention and cultivation?—Not the slightest; once planted, they will increase and multiply themselves; at least as far as my experiments go.

2353. Are they much affected by the vicissitudes of the seasons?—In cold weather they may be affected. I do not think the Phormium Tenax is what you call a hardy plant; nor should I say that it would grow in the North of Ireland, but it would grow decidedly in the South. I think all the Urticæ, that is seven varieties of the Urtica, would grow in the South of Ireland.

2354. Are you aware that the climate of Ireland is much milder and more humid than the climate of England?—I am aware of it.

2355. Why do you not extend your observation to the Western as well as to the Southern coast of Ireland?—They may grow in the Western as well as the Southern coast of Ireland.

2356. Would they grow on the banks of rivers, subject to flood tides?—Yes; those are the very places where I should plant them.

2357. On the banks of the Shannon for instance, and the rivers in the neighbourhood?—Yes. There are two companies now formed in this country, one for the manufacture of rope and sail-cloth, and the other for the preparation of flax similar to this specimen.

2358. How would you get a supply of plants for cultivation in Ireland?—From New Zealand. The method we are adopting to get our supplies is, that having sent an agent out to New Zealand, we direct him to send home plants in every ship which brings home the flax, and we have 100 tons of flax now coming home.

2359. How would you get the plants until a supply could be obtained from New Zealand?—There would be a difficulty, no doubt, in getting the plants at first starting.

2360. You stated that these specimens of linen cloth were manufactured in England from these plants?—Yes, at Barnsley.

2361. Can you give us any idea what the relative value would be of cloth made from the Phormium Tenax, and of the same cloth made from the common hemp?—Yes, No. 1 has always cost the Government from 18*d.* to 20*d.* a yard, and the manufacturer's mark upon that is 8½*d.* The house that is engaged with me is a very respectable house in the city, Messrs. Swansborough & Cake, and we calculate that upon an average we shall come under the present price of linens about one-third, particularly with the heavy goods, as they are termed.

Mr. *John Featherstone*, called in; and Examined.

2362. WHERE do you live?—Within two miles of Cunnegad, in the county of Westmeath.

2363. Are you a landed proprietor?—I am.

2364. Are you possessed of bog land?—I am, and of mountain land.

2365. Have you improved either description of land?—I have both.

2366. Have you done so successfully?—I have very successfully latterly, since I began to use the moveable rail-road, the same as that used upon Chat Moss.

2367. Will you explain to the Committee the superior advantages of using the rail-road?—The nature of our bogs, which we call the red bog in Ireland, which the Scotch call a blue moss, and the English call a moor, is, that it requires after it is drained a certain calcareous matter to be brought to it, and the moveable rail-road is the cheapest mode we have found out yet of bringing it. We used to improve formerly by barrows, and so got in the gravel; in a frost by carts, and the carts went in and out as well as they could; now we have a regular system of getting into the bog by means of the rail-road, no matter what the weather is; if it has been raining for thirty weeks it makes no difference, we can get in by the moveable rail-road, and when once we have got in the gravel, and the bog is drained, it becomes mostly as good as upland, and we can till it as freely as any upland; it becomes just as solid.

2368. Can you state to the Committee the expense you have been at in improving, first the bog land, and secondly the mountain land?—The red bog I commenced with first. My reason for commencing with the worst was, that my neighbours, who were all sceptics, would say, if I commenced with the low-lands, that they could do that themselves. I commenced with what they all allowed they could not do, and that stood me in 13 *l.* an acre. I include in that the engineer's expenses, the deputy engineer's expenses, and all the wear and tear which I thought the rail-road had undergone. I found, after excavating a gravel hole, some limestone, and I gave myself credit in that calculation for the lime-stone I found; formerly I was obliged to lay out so much money in quarrying lime-stone. The next that I commenced was part of the red bog which was cut away, the part which we call "cush," where there was a great deal of sedge and moss growing, and that stood me in 6*l.* per acre.

2369. Is that land as valuable as the former when reclaimed?—It is three times as valuable.

2370. What was the land in both cases worth before the improvement, and what is it now worth after the improvement?—The red bog was worth nothing, except for snipe-shooting.

2371. What is it now worth?—I value it at 1 *l.* per acre.

2372. Could you get 1 *l.* per acre for it?—Freely. Some land of the same sort at Ashton-under-Lyne, which was finished by Mr. Read, he offered Lord Stamford two guineas an acre on the completion of it, and Lord Stamford refused it. My land is as good, with only the difference in the position of the two.

2373. Will you state the value of the other land?—I am satisfied, in a country that wanted meadow land, they would give 3 *l.* for it; in the county of Carlow, for instance.

2374. What would it let for in your county?—I could make 2 *l.* an acre for it, if I were a farmer and let out land, for meadow; but it is not the practice of my business to do so.

2375. Can you state to the Committee the cost of improving mountain land?—I am now going from Westmeath into Galway; it is the mountains of Galway in the neighbourhood of Woodford I am acquainted with, that is, stretching up from the Shannon towards Mount Shannon, a wild country running into Clare. The flats of these mountains do not grow heath; they are covered only with long sedge, which the lower orders call "myng," and it is used very much for thatching. It is very superior to straw, and will last for many years. When the great waters are let off from those flats, they immediately give a crop without any calcareous matter being brought. They are what we call alluvial lands, and the oat they grow is so very fine, and of a rich gold colour, that if we can possibly get it down to the lowlands we sell it freely for seed oats, but the roads being so bad, we put it to the purpose of illicit distillation. It is a great deal cheaper to distil it than to bring it to market, for we could only bring a small sack at a time, and we distil it on the spot at once, and on that account very little of it finds its way into the market.

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2376. Do you include yourself, when you say, "we apply it to illicit distillation"? I do; I am a grazier, not a farmer, and most of my mountain lands are under cattle; but when first I went there I found part of it settled, and I tried in vain to stop that illicit distillation. I found it could not be done, and in the course of going over the ground I found those stills at work. At almost every cottage, men frequently brought me out whiskey to drink, and I knew my life would not be safe if I did not taste the whiskey, because that was a pledge that I would not give information. I therefore tasted the whiskey, and said nothing. Those were the habits I found in that part of the county of Galway. The landlords are rather inclined to have that illicit distillation going on, because their rents are better paid by it. My rents I found a great deal better paid in consequence of it; and until roads are made in that country it is impossible to put it down. If there were 50,000 troops, they would not be able to put it down, for it is a benefit to the landlord to keep it up.

2377. Is there a great deficiency of roads in that part of the country?—There are no roads at all. I was obliged to take my carts to pieces and carry them on horses' backs, and then I made roads through part of my own mountain.

2378. Should you not consider it fair if roads were made through that country, that a proportion of the expense of such roads should be contributed by the landlord?—Certainly.

2379. And a compulsory power for that purpose given to the Board of Works?—It would be a great improvement.

2380. Would the landlords object to that compulsory power being given?—A great number of them would, for it is a very rare thing to find a man of any class inclined to join in making improvements in that country; he opposes it.

2381. How do you account for that state of society?—For instance, when I required to make 11 miles of meer, instead of joining me in it, my neighbours said I ought to be very thankful for being allowed to do it. In fact, the lands were all in common, and the tenants were receiving a benefit from them, and I found great difficulty in satisfying them. I speak of the mountain country; there are no gentlemen residing in that mountain country, and the people are in a lawless state.

2382. Have there not been some roads lately passed through that country?—There are roads making in some places; but my neighbour, Mr. Sampson, has land 20 miles in circumference, and there is nothing but a pathway and only two farmhouses upon it. I have 11 miles, and there is no road near us.

2383. What is the nearest road for you to carry your produce and manure?—We have what are called mountain trackways within two miles of it.

2384. What is the nearest public road?—The Derrybrun road is within six miles.

2385. Is that the nearest?—Yes.

2386. Before the Derrybrun road was made, what was the nearest road then?—There was an old road that went by the Shannon, but the bridges were always broken, and therefore you could not call it a passable way. You must wait for the flood to subside if you travel the road, and then be in danger of losing your life if you passed it. That was within four miles of it, but it was not what you call a passable road.

2387. Did you or any of the neighbouring gentry ever apply to the grand jury to make a road through this country?—There was an application to open this line of country, but the grand jury set their faces against it, because they would be assessed with keeping up these lines. They said they would oppose them in every way in their power, because they said they should have to keep them up afterwards. If they were offered a present of the money they would not take it to open the line; they said so.

2388. But surely the proprietors in the barony would be so much interested in having these roads accomplished, that if they were the parties alone that would pay, they would not object to such a presentment passing the grand jury?—They unanimously wished it to pass, but they had only the power of proposing; the grand jury had the power of annulling; and when those presentments come before them, they say, "We will not grant any of those, because we shall have to pay for the keeping up a road."

2389. Are you aware they would not have to keep them up?—The Act of Parliament, I believe, makes them liable.

2390. In fact, the proprietors wished the roads to be made?—Yes.

2391. Are

2391. Are you aware that it is off the barony, and off the barony alone, that the sums for the repair of these roads can be carried?—The grand jury deny that.

2392. Were you in the grand jury room on that occasion?—Yes.

2393. Did you hear that stated by the gentlemen of the grand jury?—Yes.

2394. Do not grand juries frequently refuse to make presentments for a district of that description, from the consideration that the landlord in many cases ought to make a road for the improvement of his own estate?—In great measure the landlord will be assessed in that barony, for the greater part of the barony may belong to him, and therefore he will actually pay it.

2395. But do they not refuse to make presentments from that consideration?—No, I do not think particularly on that ground; the ground I heard them state was, that they would have to keep it up afterwards.

2396. You said the landlord would be obliged to pay it if taken off the barony; are you not aware that it is the occupying tenant who pays it?—Yes, the landlord does not pay it himself.

2397. It is a charge made after the tenant has entered on his tenure, and the landlord does not allow it?—Yes; but at the same time the tenants are most anxious to assess themselves for that purpose.

2398. Are you aware of applications for new roads being resisted on the ground that the old roads are kept open even though unnecessary?—No.

2399. Has not that been so in the county of Clare?—I do not know much of the county of Clare; it is the county of Galway I am particularly acquainted with.

2400. Have the landlords in that part of the country to which you refer the pecuniary means to make roads?—They are far from having the means; great poverty exists among several of the landlords.

2401. Do you not attribute a great deal of the evils of Ireland to the fact of the landlords being, generally speaking, in distress?—I think they are greatly distressed; but I attribute a great deal to their own indolence and supineness towards carrying on improvements, and a great dislike to those who do carry on improvements.

2402. Are you then of opinion, upon the whole, that in order to open up this district effectually there must be a compulsory power of making those roads lodged with some Government Board, with a control over the grand jury?—I have not the smallest doubt that if there is not a controlling power, the grand jury never will open the country.

2403. And you are of opinion ought not the Government to contribute to the expense of making the roads?—Yes, the landlords could never make them in some districts.

2404. Are you of opinion that in other districts in Ireland, whatever the case may be in Galway, that the landed proprietors are anxious to make roads?—Yes; I know that in the county of Clare Mr. Maliney is anxious to open the country: he does not spare his purse or his person to open the districts of his neighbourhood. He has taken pains with the Galway districts, as well as Clare, and there are a number of gentlemen who have exerted themselves very much; but it is of the body of gentlemen in that district that I am speaking.

2405. To what extent do you think the Government ought to contribute to the expense, one-half, or one-fourth, or in some instances the whole?—I think seldom the whole; half, I think, is in general a fair proportion in wild districts, where there are no gentry inhabiting; for in those mountain districts, having no roads, no gentleman will reside. They live down in the low country, and they do not care what becomes of the mountain district.

2406. You would give a Government Board not only the power of compelling the execution of such a road, but for directing the line they should take?—Yes, and then you would have the money honestly laid out.

2407. Will you state to the Committee the expense attendant on reclaiming mountain land?—I am in a great degree paralyzed from the difficulty of getting limestone and gravel, which we have within a mile of us; but we cannot get at it. My neighbour, Lord Riverston, has a beautiful limestone quarry, and he would not let me take a stone out of it, and he would not take a stone out of it himself. I offered to buy it, but he would not sell it to me. I thought that my men would get at a limestone quarry of Lord Riverston, and in that I was disappointed. I then thought he would allow me to take it at a certain charge, but he would not do that; so that limestone and gravel are both out of question. Then I built large stalls, and what lands I have reclaimed are by means of the manure from those

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stalls; but the mountain flats were reclaimed for one-third what any of the other ground was.

2408. Where there was limestone?—Yes, or without; they are what are called alluvial those flats, and there is the finest of timber; when we get the water drained off, we find trees with a ton of timber upon them lying wonderfully thick, and for ten-pence a day, a man will show you what eight men can raise. The frost does not lie where these trees are, and with a long spit, by going out early in the morning, they will find out which is most valuable. In some cases the trees are very valuable, such as the deal and the yew, and others are less valuable. These countries can be cleared for very little.

2409. What is the rent of the land?—A few tenants pay five shillings an acre for what they can till, and they have a district for the grazing of their cattle.

2410. You have stated that limestone and gravel was within a mile of you?—Yes.

2411. Do you consider it possible that you could cultivate the land profitably to yourself, drawing the limestone and gravel a mile?—No, I do not think I could; but there is limestone found in the limestone gravel, and the carts going either to market or for lime could bring turf, so that the carts would never go empty.

2412. That land you reclaimed I suppose burns red ashes?—No, the red bog will not burn.

2413. The mountain land burns red ashes?—It will, the mountain is alluvial land and produces any thing; the oats of a beautiful gold colour and an enormous crop; but what is the good of it? you cannot send it to market.

2414. You are speaking of the land in the valleys between the mountains?—Yes.

2415. What observations would you make upon the mountains themselves?—The mountains are capable of improvement also, and the Carlow people, who have a very bad description of mountain, came up to settle there, and they preferred cultivating the hills, to our great astonishment. They are a far more industrious race than any I have met with in Ireland, but being strangers there was a prejudice against them. They adopted improvements; for instance, they put their corn on stones, that the mice might not destroy it.

2416. Have you seen the improvements made by the Trappists near Mellory?—No, but the Trappists came to see mine, and pronounced that field No. 1 and No. 2 would be the best; they said these would be the best fields, because we were ploughing in gravel and amalgamating it with the soil, and it has run to the sod quicker than any other fields.

2417. What experience have you had of that?—It is now two years old.

2418. You consider it is coming into grass quicker?—Yes, the discovery at Chat Moss was like a sun bursting upon us all. We can now take a crop from the land in a year, and we can leave it as solid that our horses and carts can go upon it as freely as upon the upland.

2419. Will you state to the Committee the process of bringing a bog into cultivation, and the advantages by which your process is peculiarly distinguished?—The first step is to ascertain the number of acres you wish to bring into improvement, say 50 acres in a year. We make a boundary drain of three feet deep and four feet wide, made in a particular way, so that it is not inclined to close in. The sod we take out of the drain is thrown off at the sides, that there may be no pressure upon the drain, and it is made so that the water may run in an angle to the bottom of the drain instead of running directly over it. Then there are drains cut 66 yards asunder, and dividing the 50 acres into a certain number of fields, say eight or ten, and we number them, Nos. 1, 2, 3, 4, and so on, so that if I am at a distance I may be written to to know what is to be done with such and such a field; and then we make a kind of hollow under drains. The sods which are taken out are baked for six weeks in the sun and then laid down again, so that there is always a drain running through the field.

2420. Are they open or close drains?—They are covered at every five yards, that is, every English perch. They may be about 2½ feet in depth and 18 inches wide. The next operation is the scarifier which is drawn across the field, so that when the plough is applied it may not break into large flakes, but into small pieces. When the ploughing is finished, which is executed by one horse shod with pattens, which is used in the lowlands to prevent the horse sinking, there is a cutting roller applied drawn by three horses, assisted by a large wheel, and that cuts it into pieces about the size of three inches I suppose. The harrow immediately operates, and the

the harrow would not operate in its close state; and we then throw it into inclined plains, put in the gravel and sow with seeds; so that instead of waiting for two years we do it in two months. We do 50 acres a year, and we frequently have it so far advanced that we get crops off it that summer.

2421. What is the depth of the bog?—In some places from 20 to 30 feet before we reach the gravel.

2422. Does the bog sink much?—It has sunk three feet now, and it is going down. The stones are descending very rapidly, and each year it is becoming more dry. There is no doubt the doctrine of these bogs being wetted from springs has been a false one; it was from the capillary attraction that they were kept in that wet state. The more bog that is about, the more miasma it produces around; we find the place becomes damaged from it. It was always held that those bogs were kept wet in consequence of springs that were running underneath; and there were very deep drains commenced by several proprietors of land to drain the bogs, and they did not succeed. Then there was another doctrine, that it was by capillary attraction that the aquatic plants held the water, and I am satisfied there is no doubt of the truth of that, for destroy the aquatic plants, and it becomes dry. We met with very few springs in the course of our operations, and we have made the bog as dry as this room.

2423. It was supposed there was a certain kind of bog which was kept wet by the springs?—The general bogs in Ireland are supposed to be made by the springs. Looking at all the improvements which prevailed before the Chat Moss improvement, they attempted, by heavy drains, to improve the bogs. I never saw one attempted in any other way.

2424. A peculiar distinction of your process is, that it takes off the water by superficial drains?—Yes.

2425. Have you found you have been over-draining the country?—No.

2426. Before you adopted that plan, did you find you had over-drained?—No.

2427. Are not some descriptions of red bog very dry?—No, the red bog is always wet. The Cush is a blackish bog, and that is of a dry nature, but at the same time would not give a crop except by this process. The second description is the Cush, which can be improved at from 5*l.* to 6*l.* per acre, and left finer than most of the uplands of the country; a great deal finer than most of the land in the King's County; and it requires no drainage except the forming of it into fields, and throwing it into inclined planes, so that the water can get freely off.

2428. Do you mean by inclined planes, giving them a fall?—Yes; throwing the fields into 16-feet ridges, and Macadamize it as if it was a 16-feet road.

2429. What would that land be worth?—Three pounds an acre in the King's County, where meadow land is scarce.

2430. Is there any inclination in the land, so improved, to return to its former state?—No; it would be as easy to bring saw-dust into deal boards again.

2431. You stated you were in the habit of reclaiming 50 acres in a year; what is the capital required for that reclamation?—As to that, I could not speak particularly; I was released from many of my expenses by means of the rail-road. In the first place, I was able to work men instead of horses, and I consider that was a grand saving. I think you could keep three men cheaper than one horse, and my property became safe when I commenced these large works. I never had a sheep taken from me, or suffered any of those trifling thefts which they were in the habit of committing when unemployed. Every thing is in peace and quietness. I have now a small number of horses; most of my harness, which was a great expense, is all gone; I have hardly any wear and tear of harness; I have very few carts. I carry on a very large farming establishment, and I have only seven horses, where I used to keep 14 before.

2432. Can you inform the Committee how many acres you have reclaimed altogether?—There will be 150 acres finished this autumn.

2433. How do you describe your rail-road; are they moveable?—It is a copy of the Chat Moss moveable road; it is in a frame-work of timber, with two cross stays of iron, to prevent its going out when the weight is upon it; there is a saddle of iron upon the angle of the timber, and one goes into the other, so that it cannot sink, no matter how soft the substance you put the rail-road upon.

2434. What are the description of carts that travel upon the rail-road?—The same as the waggons used upon any of the rail-roads in this country; we draw these by men and horses, for we find there are such a number of men wanting

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employment that I thought it better to give them employment instead of horses, and they are delighted with it, and have so many perches given to them to work upon the rail-road. Land is improved by putting limestone upon it, and there are so many perches of the rail-road given to the men to draw limestone.

2435. What do you pay for task-work, for drawing limestone, on the rail-road?—I have not paid any one task-work; I am an enemy to task-work, till the men are well instructed.

2436. What is the cost of the railway itself by the perch?—Fifty-six shillings in Ireland; you can make it cheaper in England, because we are obliged to bring it from Wolverhampton, and therefore the transfer of it is expensive.

2437. That is the double perch?—Yes.

2438. The Irish or English perch?—The Irish perch; it comes to 10 guineas per ton from Wolverhampton.

2439. The 13 *l.* which you have stated as the expense of reclaiming the red bog, does not include the preparation for the crops?—Yes; all the preparing of it, but at the same time there should be no calculation from that, because we do it considerably cheaper now; all the men were colts; I was a colt myself, but now I know my work, and the men know their work, and now we do it much better.

2440. When you speak of 6 *l.* as being the expense of reclaiming the Cush, does that include every expense till the seed is put into the ground?—Yes; every thing, and you will find you can do it on cheaper terms.

2441. What is the crop you first sowed upon that land?—I sowed rape at first, but I found it grew so luxuriantly that it killed the sheep, and I have grown none since; it became too succulent.

2442. Then you let it go into grazing?—Yes, immediately.

2443. Have you ever sown a crop of wheat?—No; I am a grazier, not a farmer.

2444. Would those lands grow a crop of wheat?—Yes.

2445. Immediately on their preparation?—Yes; if there was active manure applied to them, but I would not recommend such crops.

2446. What sort of manure?—Dung from the farm-yard; where I got the gravel out of the hole, I put a square of offices, by the advice of the engineer, to produce winter manure to keep up the improvement.

2447. Then for the purpose of having a crop of wheat it is necessary that manure should be put upon the land?—Yes; active manure.

2448. I believe there is no sea-weed in your neighbourhood?—No.

2449. Have you seen it tried?—I have seen it tried on the Western coast, and there the effect is very great.

2450. Do you conceive, according to your system, that with the cutting you give the land, one green crop is sufficient before laying it down to grass?—It is ample; and I would show it against any land in the county of Westmeath, that which we have laid down this year and last year.

2451. Have you laid down any bog land with fern?—No; I know that grass, and I know it to be a bad thing for this kind of improvement.

2452. Will you state why you think so?—Fern grass is nothing more or less than the waste grass, and you may see it growing in the bottom of the bog-drains, and is therefore an aquatic plant, and only fit for wet lands; but the sheep will avoid it in every way they can if they can get our more approved grass, such as Timothy; that is where our farmers have all failed, by not giving themselves the trouble of getting the good kind of grasses; it stood me in 150 *l.* for grass-seed alone in laying down the bogs.

2453. You state the cattle would prefer all other grasses to fern?—Yes; I say of the improved kind, such as Timothy and Fox-tail; it is a common observation to say, that is a sour grass, because the proprietors do not know how to treat it. The Timothy grass the cattle will not eat, from the ignorance of the proprietor, for it is not from the quality of the grass, but from the ignorance of the man who handles it. The Scotch, who are held up as such farmers, I have heard them say the cattle will not eat it.

2454. Would it surprise you to hear, that in one farm, 10 or 15 cattle being driven into the yard, throw away all other grasses with their horns, and fasten constantly upon the fern, giving up every thing else for fern?—It may so happen in consequence of the state of the making up that hay; hay that is heated in its sap, cattle will prefer, more particularly horned cattle, to any other. If it is heated from rain, they will dislike it, but not if it is heated from its sap; that grass is

very

very likely to have been heated from its sap, being of a succulent description, and that might have caused the cattle to prefer it.

2455. Have you ever tried the growth of plants?—No; I have tried hemp.

2456. Has it been profitable?—No; it is the destruction of the land. No land, if it is not alluvial land, will stand the growth of hemp. It is 15 years ago since the Farming Society of Ireland offered as premiums to grow hemp in extent, and I was one of the unfortunate people who entered into it. It took us two or three years before we brought back the land that grew it; it produced a very beautiful crop certainly, but it took us many a load of dung before we brought the ground back to its original state.

2457. Has flax the same effect?—Flax is a very exhausting crop, but not to the same extent as hemp.

2458. Do you think that hemp would exhaust the bog lands in Ireland?—I am of opinion that what you call the bog would take a series of years before it would grow it.

2459. When once in a condition to grow it, do you think that hemp would exhaust the land?—It might not if it was in a fit state to grow it, but it would take 20 years. We have had much conversation about Botany Bay hemp, and other plants; I am conversant with those plants, and I know if you put them into a poor soil they do not generate as they ought.

2460. Have you tried any of the different descriptions of plants which have been referred to by the former Witness?—Yes; particularly Botany Bay hemp, I am acquainted with.

2461. And you found that did not succeed?—They will grow in the garden; you can make Indian corn, or any thing else, grow in the garden, but not make it a crop off the land. The most tender plants, with a little care, may grow in a garden, but to say I will grow them as crops in the field, would be madness. With regard to the soil, my garden is returned in the assessment of the county as a piece of bog; so it was, but what has it cost me to make it a garden? it has cost me many pounds to bring it into an alluvial soil, to grow those things. It will now grow them in a wonderful state, but you must lay out a vast sum of money before you can make it alluvial soil.

2462. Do you consider you must lay out more money, if it had not any moory soil upon it?—Yes, for some of the plants it would, because it would be necessary to correct that moory soil in a certain degree.

2463. There is also plants that it is favourable to?—Yes; to most of the vegetable tribe, particularly the asparagus tribe.

2464. And the celeries?—Yes.

2465. Do you think that these plants, which have been referred to, can be brought into general cultivation in Ireland?—Certainly not.

2466. Are there not large tracts of alluvial land upon the banks of rivers in Ireland, which are rich enough to grow these plants?—I believe most of them are not of that alluvial quality, like the savannahs of America, which grow the hemp. They have few tracts of that description in Ireland; there are some in Clare and Roscommon, but in the other parts of Ireland those lands are of a poor description.

2467. You are aware there are several thousand acres on the banks of the river Shannon and which are flooded at high tide, making the soil of a rich description; do you think those lands would be suited to the cultivation of those plants?—Yes, they would grow any thing which do not require a very hot sun to ripen, but I doubt whether they are fit for the purpose at present.

2468. Do you think the growth of hemp or flax would be rather injurious to Ireland with reference to agriculture?—Certainly, it hurts the land very materially.

2469. You have stated that it cost you 13*l.* an acre to reclaim the first red bog you tried your hand on; in the present state of your knowledge, what would it cost you to reclaim the average of the red bog in Ireland?—About 10*l.* There are several circumstances to be considered. It depends in a great measure whether the people are of an orderly description, for it requires a great deal of management in those works. I am satisfied if I were not a practical man, those works would have been stopped long ago from the feuds among the people. Some Englishmen were brought over, and I dare say some misfortune would have happened to them if there had not been persons to take care of them. I promised each of the men working with them 1*l.* apiece if they came safe out of the country, and that induced these men to watch them; and afterwards, when one was with me about six months, I found his arm was broken. One of the men who took care of him came to me

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himself, and said, if his arm had not been broken it would have been worse. I asked him why? He said he took a great deal of care of him, but he attempted to seduce women, which would not be borne in the country. That man would have been murdered if there were not a provident person about him; he would have had his head broken instead of his arm.

2470. You have stated that 13*l.* an acre was the expense of reclaiming the red bog; will you state how you estimate that expense?—Forty shillings an acre is what the drainage cost, and under favourable circumstances it will cost less. In some places men are cheaper, in some they are dearer, and that is the reason you will get work cheaper under some managers; but I think generally 40*s.* would be a fair allowance to calculate for the bogs.

2471. What do you pay for wages?—Ten-pence a day.

2472. Is that the average amount of wages in the country?—No, in the West of Ireland 6*d.* and 5*d.* a day is the price. Through Galway, I can get a hundred men at 5*d.* a day, and some of them come seven miles for that. At present, in my own works at Westmeath, I have boys come three miles for 3*d.* a day, and are thankful for it.

2473. You pay 10*d.* a day in Westmeath?—Yes.

2474. Could you get labourers for less than 10*d.* a day in Westmeath?—No.

2475. Will you get them at that price all the year round?—Yes, it is reduced when winter comes on, for of course there is not a demand for the cultivation, and until that is raised, there will be no benefit to the public.

Veneris, 12° die Junii, 1835.

ANDREW H. LYNCH, ESQUIRE,

IN THE CHAIR.

Colonel *John Fox Burgoyne*, called in; and further Examined.

Col. *J. F. Burgoyne.*
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2476. ARE you aware that by the 18th section of the Act, all persons receiving advances under the Act, except grand juries, are bound to enter into a security to His Majesty, whereby they are made Crown debtors?—Yes, I am aware of it, and I know it has been an impediment to obtaining better security than we have been forced to take in consequence of that; those persons of independence have an objection to bind themselves to the Crown, the consequences of which are very serious; and therefore I think that provision is rather prejudicial than otherwise.

2477. Would you recommend that the security so to be taken should be given to the commissioners instead of the Crown?—I would, in the usual form, as between party and party.

2478. Would not persons be more willing to become sureties for others if that suggestion was adopted?—I have no doubt they would.

2479. And would not thereby the security to Government be eventually better?—I think it would.

2480. Will you have the goodness to look at the 48th section of the Act?—I am aware of that provision in the 48th section.

2481. Has not such provision also operated as a great impediment to the loans of money and to the employment of private capital in public works in Ireland?—It has occasionally, and I think is likely to do so again; inasmuch as that parties who are willing to risk a certain given sum will not enter into a business by which they may be liable to any amount whatever. This provision, I think, has been turned from what was more necessary formerly, before so many researches were made into the nature of an operation for which a loan was obtained, and it became then very expedient, to prevent deception, to bind the parties to complete the work; but at present, under our Board, such a strict investigation takes place by engineers of our own appointment, that I think the same risk is not run, and therefore it is unnecessary to frighten individuals from pledging themselves towards works by such a provision as this.

Mr. *John*

Mr. *John Featherstone*, called in; and further Examined.

2482. YOU have expended large sums of money upon your property in the way of reclaiming land?—Yes.

2483. You may be a tenant in fee-simple, perhaps?—I am.

2484. But you could not expect that a tenant for life would lend out money in that way?—Certainly not; my eldest brother is anxious to lend out money to a great extent, and has a similar rail-road to mine, but says he would not go to the extent I have, because it would hurt his youngest children, as he was only tenant for life, although he allowed he could make more money than I did, for the situation of the bogs was much more favourable for the operation.

2485. Would it not be a very prudent power to give a tenant for life, with proper precautions to lay out money in the reclaiming land, the money so to be laid out by him under this protection to be a charge upon the inheritance?—I am satisfied it would be received as a great boon by the landlords of Ireland of the improving class.

2486. Are you aware there is such a provision respecting the planting of trees by an Act of Parliament in Ireland?—I am.

2487. Has not that operated beneficially?—It has.

2488. Have you known any instance where it operated otherwise?—No.

2489. Can you state to the Committee any protection that, in your opinion, ought to be taken, so as to protect the remainder-man and the inheritance against any injudicious outlay or fraudulent attempt to charge the inheritance?—No, I never brought it to my mind; I never thought of the question; and it requires of me some time to consider the subject; I should wish rather not to give an answer on the subject.

2490. But, in your opinion, the tenant for life not having such a power at present, is a great obstacle in the way of improvement?—I have heard several complaints of it, and a wish that it was removed.

2491. You stated that you have known several instances, with respect to the planting as allowed by the Act, where the power given to the tenant at the expiration of his lease, of charging the head landlord, is beneficial; will you mention any instance?—In my own case, I have property for three lives for thirty-one years, and my tenant has improved to a great extent in the way of planting; he would never have done so if he had not had the power of charging me for those trees. I have known on bishop's lands these improvements would not have gone on if they had not had the power by this Act of saving themselves as to the planting.

2492. Would you extend that power of charging the land to any lessee that would be willing to improve?—I certainly would.

2493. Would you extend it to a lessee having a lease of the duration of 21 years or under?—No.

2494. What would be your limit as to the duration?—Three lives for 31 years is what we call a fair lease.

2495. And you would give such a power to a lessee?—I certainly would.

2496. For what kind of improvement; I suppose you mean permanent improvements, such as substantial buildings?—Certainly.

2497. When you say three lives for 31 years, I suppose you mean concurrently?—Yes.

2498. The power, if I rightly remember the Planting Act, is, that if the landlord refuses to take them at the value, the tenant has a right to cut them down?—Giving him a year for the removal.

2499. How would you arrange the other improvements, if the landlord differed in opinion with the tenant as to their value?—Have an arbitrator called in on both sides.

2500. By arbitration?—Yes; you see a great number of the landlords are going on that principle of allowing the tenants for improvements, without any Act; the Marquess of Lansdowne has a large property in my neighbourhood, and he has a working agent, and he surveys before the rent-day comes all the good improvements, the good quickset ditches, and what he calls permanent improvements; he gives in a list of their work as so much rent, which passes by the agent; his estate is improved manifestly in consequence.

2501. Are you not aware that, generally speaking it is the custom of landlords to allow for certain permanent improvements, such as gravel?—It is occasionally done, but I do not consider it to be the general custom.

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2502. These powers that you would confer on tenants for life and lessees, would you not confine it to the reclamation of land, or would you extend it also to buildings?—I should view with a jealous eye that business of building, because there might be a useless outlay in many cases in the way of building; it would be a dangerous thing; I should object much to it in the case of buildings.

2503. A suggestion has been made to the Committee that the Crown, for giving grants for improving these lands, should be recompensed by receiving in return part of the land; what do you think of such a plan?—I should object to that, the landlords in Ireland would consider it a forced boon upon them, giving up their property as a remuneration for opening these waste lands; I think myself the Crown would be amply repaid in another way for opening these waste lands.

2504. In what way?—It would put down, in the first place, illicit distillation fully, and the Revenue police, which is a great cost to the Crown and the country at present, would go of course along with the illicit distillation; that would pay the Crown.

2505. What is the difference of the value of oats raised in the interior of the mountains, and outside?—It was considerably higher in the mountainous country than the lowland; when I go from Westmeath into Galway, it is strange to say, I find oats at a higher price in Galway than in Westmeath.

2506. How do you account for it?—Illicit distillation.

2507. You mean in the district of Galway, where there were no roads?—Generally all over the province of Connaught.

2508. You are aware there is a very good reason for that, in the circumstance of its being necessary to have the best description of corn for making meal?—Oh! they do not trouble themselves much with meal in Connaught; it all goes to illicit distillation; instead of having the meal to come upon when the potatoe crop is bad, it is all gone in illicit distillation; you seldom see the peasants use meal there.

2509. You accounted for the distress in a certain way; do you account for it in this way, that there are no roads to bring in the food and the grain?—Certainly.

2510. Pray did you ever read the evidence of Mr. O'Farrell before the Agricultural Committee, I think the year before last; Mr. O'Farrell, the Member for the county of Kildare, relating to illicit distillation in the county of Kildare?—I do not know that I did; I could not answer you positively.

2511. Are you aware of this, that the illicit distillation is more general in the county of Kildare, round Mr. O'Farrell's house in every direction, 21 miles from Dublin, than any place in Ireland?—I went to the Custom-house myself, for the purpose of stopping the illicit distillation about Mr. O'Farrell's house; but it is in consequence of the position of his house, being surrounded by the bog of Allen on one side, and the swampy country of Trenara on the other; in those fastnesses it is difficult to put down illicit distillation, though the gentleman may be very anxious for it.

William Bald, Esquire, called in; and Examined.

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2512. HAVE you been employed in any public works in Ireland?—I was employed as one of the engineers to report on the practicability and drainage of the bog lands in Ireland. I have laid out some hundreds of miles of roads in Ireland; I am the directing engineer, now employed in deepening and improving the harbour of Drogheda; also in conducting the works of the Antrim coast road, which runs along the north-eastern shore of Ireland; the great road now making between Kenmare and Bantry, in the South of Ireland. I have examined the country, and reported on the making of a rail-road from Limerick to Carrick-on-Suir; also on one from the Cave-hill to Belfast; and I was also directing engineer to the Commissioners of the counties of Londonderry and Antrim, for building a bridge over the Lower Bann, which has been finished, and various other works in Ireland.

2513. You were employed, you say, respecting the reclaiming of the bog lands of Ireland?—I was.

2514. Did you satisfy your mind upon that occasion, that in general the bogs of Ireland were capable of being reclaimed, and to what extent?—After having surveyed and levelled more than 300,000 acres, I found them all level-free, unlike a part of the fens in England, or the bog soil which covers a portion of South and North Holland, being under the level of the ocean.

2515. What do you mean by level-free?—Any portion of ground standing above the level of the sea, that the waters will flow freely from it by drainage.

2516. What part of the bogs of Ireland have you surveyed?—Three districts west

west of the Shannon, viz. the district which occupies the summit ridge of the country lying between Killala Bay, Galway Bay and West Port Bay; the next district was in the south and eastern division of Mayo, embracing the basins of the rivers Moy and Robe, the plains of Mayo, and a considerable extent of territory, stretching into the county of Sligo. This district extended to the edges of Lough Garra, which is one of the feeders of the Shannon; the other district occupied the south-western division of Mayo, lying between the waters of Lough Mask and the Western Ocean, and between the Killery on the south and Clew Bay on the north; a hilly but improveable district of country, and the remainder of the flat and elevated bogs in Mayo.

2517. Were all the lands to which you have now referred bog lands, or were they lands covered with water, and part of it capable of being drained, so as to protect them in winter?—The instructions of the Commissioners for the drainage of the marsh lands of Ireland, specified that if a bog could not be drained without reducing the water level of a river or a lake, in that case it was the duty of the engineer to report upon the lowering of the waters in the river or lake, so as to afford an ample drainage for the bog lands adjacent.

2518. What would be the probable expense per acre for such drainage?—This depends upon the extent and nature of the strata to be cut through or lowered. Detailed estimates are to be found in the Reports on the bogs, and I remember making an estimate of a tunnel through limestone for draining Saleen lake, near Castlebar, containing, when under flood, more than 200 acres, besides giving vent and a better fall to more than 1,500 acres of bog lying near it. I also proposed to lower the bed of the Minola river, which would not only drain the bogs, but an immense quantity of bottom land, and would give a power of irrigating to a great extent. The expense per acre for draining bog must vary according to its nature, whether soft or firm; some of the bogs in that country extend to a depth of 42 feet in some instances; in others not more than from 3 to 10 feet in depth; they are generally surrounded with limestone, limestone gravel, also with other gravel, and the high grounds contain mica slate and sandstone; granite is found in the south-western district of a most superior kind, and also on the borders of Lough Cullin. Under the bogs in many places, beds of marl are to be found; and in the creeks and bays on the coast shell and coral sand is to be found in abundance; affording immense facilities for bringing into rapid cultivation those waste lands.

2519. Is there not sea weed?—And sea weed also in great abundance. With regard to the price per acre for the drainage of the lands upon a general and extended scale, I should say about 1 *l.* per English acre to drain.

2520. After you have drained the land, what would be your next process in the way of reclaiming?—It would depend much on the nature of the bog that was to be improved. Torrefaction, burning the surface, laying after that either limestone gravel or lime in a caustic state, shell or coral sand, or any calcareous substance upon it, which would reduce the bog matter to a fertile vegetable mould, and which would be then capable of producing luxuriant and fine crops of corn and potatoes, &c. &c.

2521. What would be the expense of that second operation?—About 4 *l.* 10 *s.*

2522. In those Reports you made, according to the instructions of Government, did you not estimate every one of those things, both drainage and the price that was necessary to bring the land into a state fit for cultivation?—Yes.

2523. Have you any reason to alter your opinion from subsequent knowledge as to the correctness of your former estimates?—None.

2524. In what year was that?—In the years 1810, 1811 and 1812; after having surveyed all these morasses, I examined the drainage of Holland, and the operations of the Dutch engineers, both in the northern and southern territory of that country, and I have been still more convinced of the practicability of draining the bogs, and also of improving the southern and western districts of Ireland.

2525. Has the diminished value of agricultural produce since that period and the equal value of labour, made any change in your opinion?—I am still of opinion that even low as agricultural produce is, that not only the draining and improving of the bogs of Ireland will be found profitable, but will increase the revenue of the state, and enable England to obtain several articles which she at present purchases in a foreign market. It has been stated that during the last War England paid to foreign countries, ten millions annually for agricultural produce, which might have been procured from Ireland if the bog lands had been under cultivation.

2526. Is it not a very different thing to reclaim an acre of land when the value

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of a quarter of wheat is 120*s*., from reclaiming the same land when you can only have from 40*s*. to 50*s*. for it?—It must, if the price of labour in both cases be the same.

2527. Is it not a very different speculation, reclaiming land when wheat is 120*s*. per quarter, from what it is when wheat is between 40*s*. and 50*s*.?—It must, if the price of labour be the same.

2528. How can you consider that the calculations that you made in the years 1810, 1811 and 1812 are to be considered good for the years 1834 and 1835?—Calculations based on the value of produce when high, must, no doubt, undergo a modification when low; yet notwithstanding the draining and reclaiming of the bogs in Ireland will be found profitable; there is no species of improvement remunerates better than draining.

2529. Pray, after the expenditure of 1*l*. per acre on draining, and 4*l*. 10*s*. on reclaiming, what rent do you suppose that land would have produced in the year 1814 on an average; you have taken the average of the draining, what would it produce in 1814?—I should think from 15*s*. to 20*s*. an acre.

2530. What would it produce now?—I am not exactly able to answer that question; because I am not now acquainted with the markets of that part of the West of Ireland.

2531. Do you know the value of land in Ireland generally now in comparison with the years 1810, 1811, 1812 or 1814; would you take off a third?—Yes; I should think about a third.

2532. Is there any other expense attendant on reclaiming land besides that you have now mentioned, the drainage and the reclaiming by putting calcareous matter on it?—Besides opening the districts of bogs thoroughly by roads, and fencing, I do not remember any thing, except to preserve a perfect drainage, and to bring it into a proper system of cropping, and into good condition; I do not know any thing else to be done.

2533. If these lands on an average would produce 15*s*. per acre in 1814, what do you suppose they would produce now?—Ten shillings an acre. With regard to the improvement of the bogs of Ireland, I am of opinion that moss or bog might be applied to a variety of useful purposes; it could be employed to the working of steam engines in vessels navigating the rivers and lakes in the West of Ireland, also in machinery, in steam engines employed in all kinds of factories. Carbonized peat or bog would also make excellent malleable iron. The iron of Sweden owes its high value and good qualities to its being manufactured by pine charcoal. The sulphur in the coal deteriorates the iron manufactured in Britain. The malleable iron manufactured by carbonized peat would be unequalled for making chains for bridges of suspension, cables for ships, &c. &c.

2534. I wish to ask whether any particular process is necessary to be gone through with the peat and turf, in order to fit it for the purpose you have mentioned?—Nothing more than drying it well; but for general use the pressing of dried bog fuel into a small volume would be valuable to Ireland. This is a very important subject, and I am very glad you have put the question, because various attempts have been made to consolidate peat, to make it occupy a less space, and to procure a greater quantity of heat; experiments have been made in Scotland; they have been published; in which ton for ton of compressed peat, as compared with coal, has been found to give as much heat. They have, however, failed generally in the compression of peat, because the attempts have been made to compress it when in a state of wetness, and that, though impossible to be attained, is quite easy to be done when in a dry state; it then might be pressed to one-fourth its volume, and in that state it might be applied to very many useful purposes. On the Shannon, there is a vessel, called the "Lord Dunally," having a single engine on board of 18 horse power, which is fed by peat fuel. This steam-boat is propelled along the waters of the Shannon at an expense of 4*d*. per mile; she is an iron boat, 70 feet long, 15 feet beam, and consumes 30 boxes of turf in going 30 miles.

2535. Compressed turf?—No, the ordinary turf.

2536. Do you mean to say she goes against the stream, or against the tide, consuming only 4*d*. per mile?—Yes, she sails daily 30 miles, and the expense for turf is 10*s*.

2537. Against the tide and against the wind?—Yes, up and down the Shannon against wind and current, from Portumna Bridge to Shannon Harbour. There is

as much bog in Ireland, as would supply the present inhabitants of 7,000,000 and a half with fuel for 2,032 years ($1{,}760^2 \times 7 = 21{,}683{,}200$, $\frac{21{,}683{,}200}{5} =$ $4{,}336{,}640 \times 7{,}031 = 30{,}490{,}915{,}840$ tons, if compressed for 4,064 years), allowing a consumption to each person of two tons per annum; the consumption of the cities of Great Britain being about one ton of coal to each inhabitant per year, and two tons of uncompressed peat is equal to a ton of coal; but if compressed, ton for ton, equal.

2538. Can you state to the Committee whether any and what steps have been taken in consequence of the reports that have been made by the commissioners for reclaiming the waste land of Ireland?—The bogs in Ireland since the years 1810, 1811 and 1812, that I have been acquainted with, have not undergone any improvement, except some small operations round the edges of some of them, where the country people have reclaimed some small plots or patches, after the upper surface had been considerably cut away for fuel.

2539. Has any great outlay of money been expended?—I have not heard of any great organized plan having been acted upon in conformity with the suggestions of the commissioners' engineers, except a small district in the South of Ireland, under the direction of Richard Griffith, esq. Those bog reports, however, of the marsh lands of Ireland, have excited very great attention, not only in Ireland, but in France. They have given much valuable information regarding the levels of the country, and several applications were made to me in Paris to procure copies of the reports of the commissioners for the drainage of the waste lands in Ireland; and I suggested to the Royal Society of Dublin to have those plans and those reports all published, thereby diffusing a greater mass of useful knowledge, regarding the drainage of the waste lands of Ireland and the levels, than perhaps any other country, with the exception of Holland, would be in the posssession of. These reports excited attention in France, because there is in that country more than two millions of acres of marsh; therefore an anxiety prevailed to learn every thing regarding the drainage proposed in Ireland. Monsieur le Baron de Monbret, Member of the Institute, was most anxious to purchase a copy; and Monsieur Masclet, formerly Consul-general for France, in Scotland; also Mr. Warden, who was formerly Consul for America in the time of Jefferson being President of the States.

2540. You are aware the reports, as they stand, would be enormously expensive, on account of the maps?—I am not aware that so great a country as Britain, possessing such enormous means, having 4,500,000 acres lying uncultivated and unimproved, a receptacle at present for miasmatic infection, producing typhus fever through the land; I say no expense should deter the Government of such a country as England from having those maps and reports, not only printed and neatly engraved, but the survey of the bog lands of Ireland ought to be entirely finished; some districts remaining still unsurveyed and levelled or reported on.

2541. Perhaps you will mention where the maps and plans now are?—They are all in the Dublin Society.

2542. You have said you have been lately in France?—Yes, I was there several years.

2543. Do you remember the manner of drainage in that country; can you state to the Committee your observations respecting the manner of drainage in France?—I am not aware there is any thing peculiar in the mode of draining in France different from that to be found in England, except the laws passed by the government of Buonaparte, on the 16th September 1807, which are partly to be found in the second volume of the Encyclopedia of the French engineers. It states, that fever having frequently manifested itself along the borders of the marshes in France, the draining of them became necessary. I think the marsh of Contentin, the marsh of D'Arles, and of the Etang de Rochfort, were drained during the time that Buonaparte wielded the sceptre of that country, and he intended to have had the whole marshes in France drained; also during his government the Pontin Marshes, in Italy, were examined and levelled, and reports on the Delta of the Po were made, I think, by Baron Prony, chief engineer, and director of the school of roads and bridges in Paris. The proceedings were as follows. Commissioners were appointed, who ordered a general survey of the marshes, at the expense of the government. The boundaries of each proprietor were distinctly marked upon the face of the maps or plans, describing the number of acres, and annexed to the map a valuation by the commissioners; this was prior to any drainage. But when that was effected, which was done under government,

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and solely at its expense, the lands were then offered to each respective proprietor, at the expense that they had cost for drainage. If the proprietors chose to redeem the property, they paid the money; others who did not choose to do so, their part was sold by public auction. If the money received for the value of the drained marsh land exceeded the price of drainage, so as to make the marsh fit for agricultural purposes, the balance was handed over to the proprietor, and the other part remained to the government, as an indemnity for the expense of surveying, valuing and draining.

2544. Would you suggest the adoption of a similar measure in Ireland?—I am not so thoroughly acquainted with British law, and with all the intricacies of property, to offer an opinion off-hand on so important a measure, and bearing on so many interests.

2545. Would you give a power to a tenant for life to charge the inheritance with the necessary outlay for the reclaiming of land, and with what precautions?—I beg to say, that in making roads through the bog lands and vales of Ireland, I have had an opportunity of knowing that the farmers occupying portions of land would drain and improve, if proper encouragements were given to them; I mean to say, leases of 21 years, and leases of 31 years; but, I think, that in large districts of country, where the bogs are very deep and of great extent, that nothing short of a great national measure should be put in operation to effect a drainage.

2546. Have you formed any definite ideas of what that measure ought to be?—As there are 4,500,000 acres of waste land in Ireland, bog land, I am of opinion——

2547. Which are capable of being reclaimed?—Yes; I have found, by barometrical measurement, corn and potatoes growing luxuriantly at heights of seven and eight hundred feet above the sea. I am of opinion that it ought to be a measure undertaken by the Government of the country, or at least under its authority, because those waste lands are injurious to the health of the inhabitants; besides those lands would produce an immense quantity of articles which are now imported from foreign countries. Perhaps the want of capital in that country might also be added as a reason why the Government should give some security to companies, either in Ireland or in Britain, connected with some definite plan for their improvement. There are near a million of men in Ireland that could, during many months of the year, be employed in a most useful and profitable manner, and men's hands are capital, and when men are idle, it is a loss to the State, for they must be fed; it is therefore lamentable to see not only those 4,500,000 acres lying in a state of nature, but to see so many men unemployed; the quays of Dublin are crowded with them, passing to England searching for employment. There is another circumstance I beg leave to mention, connected with the bog lands of Ireland, that in draining them, more fuel would be procured. A moss or bog is like a coal field; it is even better, for when a coal field has been exhausted, it never can be reproduced; but a bog can, for all the bogs of Ireland have been formed from the obstruction given to the free passage of water; also climate and the irregularity of surface may be added, for we find the greatest quantity of bog land occupying the northern countries of Europe, bordering the Baltic Sea to the south and north, within certain latitudes, because they are not to be found in southern Europe, where the climate is dry. If the bogs of Ireland were drained, as I have before mentioned, fuel could be had in abundance, and the capital (Dublin) might perhaps be supplied with 600,000 tons of peat fuel, instead of importing from three to four hundred thousand tons of coals from England. I should like to see a great part of Dublin supplied with fuel from the interior bogs.

2548. Why is it that Dublin market is not at present supplied with turf from the interior?—The bog of Allen approaches to within about 20 miles of the capital, or 22 miles of the capital, the eastern edge of it.

2549. There is the Grand Canal?—The Grand Canal could not at present spare as much water in a dry summer season, from its existing trade, as would carry a sufficient supply of turf to Dublin. The Royal Canal, which is fed from Lake Owel, has also been known in one season, within the memory of man, to be short of water. It is therefore my opinion, that it might be difficult to procure a sufficient supply of turf fuel for even half the consumption of the city and environs of Dublin. Turf at present in Dublin sells for about 15*s.* per ton; coal may be taken at about 18*s.* per ton.

2550. Has the difficulty you spoke of, with respect to the deficiency of water, ever been felt in the carriage of craft into Dublin?—A deficiency of water, I believe, has been felt in summer on part of the Grand Canal. At present there is imported

ported into Dublin by the boats about 50,000 tons of turf, every part of which is sold at the rate of about, as I before mentioned, 15*s.* per ton, which is equivalent to coal at 30*s.* per ton. The poor people of the city of Dublin prefer turf fuel to coal fuel for the purpose of cooking, &c., and it would be a blessing to many classes of people in that city to have turf fuel given them at half the present price. In the bog of Allen, turf fuel could be cut for 1*s.* a ton; it could be pressed with a pressing wheel at 6*d.* per ton; it could be carried along the main trunk rail-road, which is to traverse Ireland into the city at the rate of—I am going to allow so high as 1¼*d.* per ton per mile, which for 40 miles will be 4*s.* 2*d.*; 1*s.* for cutting it; 6*d.* for pressing it; then the poor of Dublin would pay, including other charges, about 6*s.* per ton, and at present they pay 15*s.*; it is worth examination. A loaded boat at present carries about 40 tons of turf; those boats cannot go along the Royal Canal and Grand Canal to the fields of bog, and get a cargo, and return back to Dublin in less than from six to eight days.

2551. I asked you whether any practical difficulty with respect to the supply of water had taken place?—I do not think the Grand Canal has a sufficient supply of water to carry such a quantity of turf as six hundred thousand tons annually into Dublin along a distance of 40 miles and passing 19 locks.

2552. Would you not in a very short time exhaust all the bogs of Ireland?—I have already made a calculation that there is as much bog in Ireland as would supply the present population for twenty centuries, and if compressed for forty.

2553. Could not a sufficient supply of water be obtained for the Grand Canal for all purposes?—I am sure that at present there is no such supply of water as would send into Dublin, 40 miles distance, 2,000 tons of turf daily by the Grand Canal.

2554. Are you aware that there is a perpetual combination among the turf growers of Dublin along the line of the Canal?—I am not aware of that.

2555. Therefore you are not apprised that even human lives have been sacrificed because more boats were put upon the Canal, because turf sold a little cheaper by them?—I am not aware of it.

2556. You are not apprised of the fact that the combinators have become successful, and they do not allow the boats to discharge except by a given order, which keeps up the price?—No, I am not; but this argument proves the necessity of some other mode of conveyance perhaps than that by water; it is a much easier matter to stop a boat on a canal than to stop a train of waggons going at a velocity of 15 miles an hour.

2557. But the moment a train of waggons has gone by, is there any difficulty of breaking down the rail-road?—There is a possibility also of breaking the banks of the canal and spreading destruction to a greater extent.

2558. And there is the same possibility of breaking the rail-road?—I am not of opinion that for this argument of yours, an improvement that will extend civilization and confer so much benefit on the population of the city of Dublin, and particularly the poor, should be deterred from being proceeded with.

2559. Are you of opinion these facts have been stated to deter people from introducing civilization?—No, I am not; I only regret extremely to hear that such has been the case.

2560. You spoke of the deficiency in the supply of water; are you aware there is a river going to waste almost constantly, in a very considerable stream, by the banks of the Grand Canal in Dublin?—I have always heard them complain of the want of water for the Grand Canal in Summer.

2561. Are you apprised that they might take the River Liffey?—There is a possibility that the Grand Canal might be very much improved, and some levels perhaps run into one, and a greater supply of water given.

2562. I perceive you are not apprised that it is not only physically possible, but there is an Act of Parliament empowering them to take the River Liffey; are you aware of that fact?—No.

2563. Then I perceive that when you speculate on the canal being, I may say, physically incapable of giving to Dublin the proper supply of turf, you said that in the absence of the knowledge of a number of facts belonging to that particular subject; is that not so?—It takes a loaded boat about six minutes to pass a lock, and no calculation has yet proved to me that the Grand Canal is able to send in daily 2,000 tons of turf a distance of 40 miles, because it has not a supply of water for such an extensive traffic.

2564. The question I put to you is, when you thus speculate of the impossibility of supplying turf to Dublin by reason of the deficiency in the Canal itself, I want

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to get this admission from you, that you are unacquainted with several facts and particulars that would just answer those objections?—It is a matter of calculation, and I say that the Canal is not able to perform it. The Grand Canal is not able to send into Dublin daily 2,000 tons of turf 40 miles, and passing 19 locks. The annual revenue alone of the carriage of 600,000 tons of turf fuel into Dublin at the low rate of 1¼*d.* per ton per mile, would be 125,000*l.*, more than double the revenue of the Grand Canal.

2565. Is that the least answer to me of your want of knowledge both of the law and facts touching this canal; you make a calculation about locks?—I have calculated as to time, and inquired about the supply of water also on the Royal Canal.

2566. I am speaking of the Grand Canal?—There are 19 locks on the Grand Canal, through which loaded turf-boats pass, carrying about 40 tons. They take about six minutes to pass a lock, and from six to eight days to perform a voyage. I am therefore of opinion that 2,000 tons of turf, the daily consumption that the city of Dublin would require, could not be carried in by the Grand Canal.

2567. Do not you perceive that your answer is totally independent of the supply of water, and presupposes a sufficient supply of water; for you cannot make a calculation of so many boats passing through a lock, if there is no water?—I have made the calculation both by the time and also by the water; and I am decidedly of opinion that the Grand Canal could not send in daily 2,000 tons of turf fuel, nor any thing like it, for a distance of nearly 40 miles, and passing 19 locks, for there would be required for this traffic several hundred boats. The carriage alone of 600,000 tons of turf fuel into Dublin would give full employment to both the Grand and Royal Canals, and afterwards plenty to the railway.

2568. You talked, in your evidence a few minutes ago, of a main trunk of rail-road; now where would you propose to have that main trunk of rail-road passing through Ireland, from one point to another?—I should propose, as a national work, that the rail-road should go through the centre of the kingdom, convenient to the great bog-fields, in the lowest and most level ground, directly across the country, to the Shannon, with branch lines to Galway and to Sligo, the main trunk extending through Mayo to the harbours of Blacksod and Broadhaven, or Clew Bay. In Clew Bay are to be found numerous safe harbours, with Clare Island as a breakwater at its entrance, and on which a harbour might be formed at its eastern extremity, capable of giving ample security to any ship or ships. I have read a manuscript report of Murdoch Mackenzie's, on the formation of a harbour at Clare Island, in which he speaks most favourably; this was at the time he was making the charts of the shores of Ireland, and I presume that report can be procured, if required, I think it would be important, for this reason, that this main trunk would embrace a very extensive population, divide Ireland in two, supply the capital with turf fuel to a considerable extent, and it would also be nearly in the line of direction, going on an *arc of the sphere* from Liverpool to Dublin, across Ireland, and on to St. John's in Newfoundland.

2569. Do you not conceive it might be done much more cheaply than in the proposed way towards Valentia?—I am of opinion that no part of Ireland, in crossing it, offers greater facilities to the making of a rail-road than that from Dublin to the shores of Galway and Mayo, because the country is level, and contains an abundance of material, necessary to the construction of such a work.

2570. What kind of harbours are those of Blacksod and Broadhaven?—Blacksod harbour is very large and roomy, and works to any extent might be constructed within it to hold ships; it also stands much seaward into the Atlantic.

2571. What sort of harbour is Broadhaven?—Broadhaven is not so large as Blacksod, but it is an excellent harbour. These harbours might be united together, as they are only separated by a narrow isthmus of about 600 feet broad, by constructing two magnificent floating basins, connected together by a canal. In this country is to be found an abundance of the finest granite in the world, extremely suitable to engineering works of all kinds.

2572. Do you not consider that those harbours are particularly well situated for steam navigation with the shores of North America?—I do; for they lie near the straight line drawn on an *arc of the sphere* from Liverpool and Dublin to St. John's in America.

2573. Do you think it is nearer to the straight line than the line to Valentia?—I am of opinion it is nearer to the line drawn on an arc of the sphere going in the direction from Dublin to St. John's, than going by Valentia to St. John's; I am also

of

of opinion that the country offers greater facilities to the construction of a rail-road, and is more level. The ground is more hilly and undulating, taking a line from Kingstown Harbour to Valentia, than from Dublin to Blacksod and Broadhaven, Clew Bay, or Galway.

2574. What are the different lengths; is there any difference in the distances?—In a straight line from Dublin to Valentia it is 162 geographic miles, and from Dublin to the harbours of Blacksod and Broadhaven it is 140 geographic miles. This has been measured from Arrowsmith's Map of Ireland, and also the following distances:—

Dublin to Sligo	-	in a straight line,	94 geographic miles.
Dublin to Westport		,,	118 ,,
Dublin to Galway		,,	97 ,,

and from the Black Rock outside of Blacksod Harbour to St. John's in Newfoundland, taken on an *arc of the sphere*, is about 1,580 geographic miles.

2575. Have you formed any calculation of the expense?—No, I have not; but I should imagine from the low plateau which stretches from Dublin Bay to the waters of the Atlantic, across Ireland in that direction, either to Galway or Mayo, it could not be attended with any great expense. I will venture to say, on account of the facilities, that it will be done for 10,000*l.* a mile.

2576. Are the coasts of Galway and county of Clare such as to give Blacksod Bay a decided preference over the harbours in Connemara and Kilrush?—I presume, by an inspection of the chart, that the position of the harbours of Blacksod and Broadhaven are very peculiar, and are capable of being united and improved to a great extent; perhaps more seaward than those that might be suitable for such a purpose, either in Galway or Clare; there can be no doubt that the shortest and most level line is from Dublin to Galway Bay, or to the shores of Mayo at Clew Bay.

2577. Would vessels be at all times able to leave the harbour of Blacksod?—O yes! steam vessels would; it is a large, roomy, spacious entrance, of great area within, and three, four, five and seven fathoms deep, and where ship basins to any extent might be constructed.

2578. You are acquainted with Kilrush?—Yes, I have been at Kilrush.

2579. And you prefer Blacksod Bay to Kilrush, the mouth of the Shannon?—I have been looking to the shortest direction to be combined with the most seaward harbour, and what would give the greatest possible advantage to the country, by the construction of a main trunk railway across Ireland; and I am of opinion a line taken from Dublin to the shores of either Galway or Mayo would be in the shortest and in the most level direction; and the harbours of Blacksod and Broadhaven will be found to be the most seaward in that line.

2580. Do you suppose the turf is now cut in the bog of Allen for 1*s.* a ton?—Turf is cut for 1*s.* a ton at Mr. Browne's, near Limerick, also in parts of Galway and in Mayo.

2581. Are you aware that Blacksod is 150 miles north of Bristol?—It is about 185 miles north of Bristol.

2582. Are you aware it is 184 miles north of London?—It is about 180 miles north of London; but it is only about 15 miles north of the straight line drawn on an *arc of the sphere* from Liverpool to St. John's in Newfoundland.

2583. Are you aware the wind generally blows from the south-west in the western parts?—I am aware of it.

2584. Are you aware to get to Blacksod any vessel from America, for example, would have to coast 150 miles, any vessel coming from Philadelphia?—I should imagine a proper steam vessel, under the direction of a skilful commander, could make with a west or a south-westerly wind Blacksod or Achil Head just as direct and easily as any other port or headland, situated on the west or south coast of Ireland.

2585. I am speaking now of sailing vessels; a sailing vessel from Philadephia, for example, would she not have to go along 150 miles of Irish coast to get to Blacksod?—I do not conceive why a skilful commander should not at once make Achil Head as well as Valentia, or any other part on the West of Ireland, and without incurring the risk of a lee shore with such a wind.

2586. Must not that depend on the state of the wind; for instance, in a winter's rough gale would he not be losing lee way all the time?—If the vessel was kept too much southwards, and made Valentia close, with the wind in upon the coast, I would then say the ship was on a lee shore; but in running from Philadelphia

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for Blacksod in Mayo, or for the Channels to the North or South of Ireland, the captain should run for them without creating a lee shore, by keeping his ship upon her true course, and with a wind from the west or south-west, he very easily could do.

2587. But will not her course be affected by wind and tide?—There is no question of it.

2588. Then her course being affected by the gulf stream, for example, as far as it is felt, and the wind blowing from the west, is it not clear that there is a lee shore in Ireland before you get to Achil Head, of 150 miles?—If Valentia be first made, then there would be a lee shore; but why go so far south with the ship? why not run direct for Achil Head without creating a lee shore by going so much southwards?

2589. The wind blowing from the west or south-west, is there not a lee shore of 150 miles?—That depends upon the position and distance of the ship from the coast, and which may be known by the reckoning and observation. If a ship be running from North America, and is carried out of her direction either by wind or tide, a skilful and experienced navigator will always know his position and avoid a lee shore.

2590. Is there not a lee shore in Ireland of 150 miles and upwards for every western wind and south-western wind, before you get to Achil Head, coming from the south?—Yes, if Valentia be first made, but not if the vessel makes direct for Achil Head, which she can do with such a wind.

2591. Supposing you are going from the West Indies to Blacksod?—I am not aware in that case of any difficulty that a ship has in making Blacksod Bay, as easily and as safely as any other harbour on the west coast of Ireland, the Atlantic being wide and open and the wind free.

2592. Do you mean to say, with the wind at west or south-west, you are not aware of a lee shore from Cape Clear to Blacksod Bay; a vessel being off Cape Clear, and the wind being west or south-west, and the course of the vessel being Blacksod Bay; do you mean to say she has not a lee shore of upwards of 150 miles?—It depends upon the ship being close upon the land; it depends upon the position and distance of the ship from the land.

2593. I would ask you, suppose a ship is coming from the river St. Lawrence to Broadhaven, will she consider any part of the coast of Irelanda lee shore, with the wind from the south-west?—That would depend upon the part of the coast she would make, and the port she was bound for.

2594. She can go direct to it, as easily as she could to Valentia?—She could make Achil Head and Blacksod as easily and directly as she could Cape Clear, Valentia, or the northern or southern Channels of Ireland; besides Achil Head is the most remarkable headland on the west coast of Ireland, and forms the land on the south entrance into Blacksod Bay. The saddle of Achil Head is elevated above the sea 2,254 feet, and can be seen in clear weather seaward, on the waters of the Atlantic, at a distance of more than 58 miles. This gigantic headland is therefore, perhaps, one of the most unerring guides to the mariner, when he makes land crossing the Atlantic from America to the west coast of Ireland, that can perhaps be any where found on the coast, being remarkable both for its contour, height and seaward position, such as no mariner, even in the night time during clear starlight, could easily mistake. A light-house, erected on the Black Rock, which lies seaward to the entrance to Blacksod, would be required, if the harbours of Blacksod and Broadhaven are destined to become the connecting point of Western Europe with the New World.

Lunæ, 15° die Junii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *Richard Griffith*, called in; and Examined.

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2595. YOU are a civil engineer?—I am.

2596. You have been employed by Government in Ireland on several Public Works, and also in a public capacity, have you not?—I have; I am at present employed as director of the boundary department of the Ordnance Survey of Ireland; I am likewise Commissioner for the general valuation of Ireland, and I have the direction of the new Cork and Kerry roads, which are now being made at the joint expense of the Government and of those counties.

2597. You

2597. You have been employed for some years in the construction of roads and bridges in Ireland, have you not?—Since the year 1822 I have been employed in the construction of roads; and I have made 240 miles of road, partly at the Government expense, and partly at the joint expense of the Government and of the counties through which they pass.

2598. In what part of the country?—In the counties of Cork, Limerick, Kerry and Tipperary.

2599. Can you state to the Committee the situation of those counties, before making the roads, and state what they are now in their present situation?—In three Reports prepared by me, and which have been laid before Parliament, I have fully described the state of the mountain, as it was when I commenced the roads; it was for the most part uncultivated and in a state of nature; and the inhabitants presented an appearance of misery and destitution almost unparalleled; at present the inhabitants are comfortably housed, comfortably clothed, and the country presents a scene of activity and industry which is truly pleasing.

2600. Can you state shortly to the Committee the consequences attendant on making the roads?—The consequence has been that the same people who in the year 1821 were lawless banditti, have become industrious and successful agriculturists.

2601. The lands have also been cultivated, which were before in a state of waste?—Yes, to a very great extent; many thousand of acres are now in a state of cultivation, which were formerly comparatively waste; and the value has been increased from about 1*s.* an acre to 20*s.* and in some instances to 30*s.* an acre.

2602. If means were placed at your disposal, do you think you could apply a large sum of money profitably in the construction of roads and reclamation of bogs in Ireland?—Certainly; and not only in the mountains, but also in the lowlands.

2603. Can you state to the Committee, in particular, what parts of the country require most that assistance?—I think the western counties of Ireland require it more than the eastern; I would particularize the counties of Cork, Kerry, Clare, Galway, Mayo and Donegal; but all the mountain districts of Ireland require additional roads, as a prelude to draining and agricultural improvement.

2604. At whose expense would you propose those roads to be made?—I think that all leading lines of road should be made at the expense of Government; but the smaller ones partly at the expense of the proprietors, partly at the expense of the county, and partly at the expense of the Government.

2605. In three divisions?—Yes; I am of opinion in all uncultivated and waste tracts, if the landed proprietors possessing two-thirds of the value of the land, agree to subscribe jointly one-third of the expense of the road for opening their estates; if the Board of Works approve of the line, and consider it to be of sufficient importance, they should be authorized to grant a sum equal to that subscribed, viz. one-third; and it should be imperative on the county to grant the remainder by presentment.

2606. On the county or barony?—I think the money should be levied off the barony and the county in the usual proportions. I conceive that the occupants of lands without roads have hitherto paid county assessment, and therefore that the county is greatly indebted to them; and consequently they have a right to demand at least one third of the expenditure from the county; and I am of opinion that the Government would be amply remunerated for their contribution by the increased sale of exciseable articles.

2607. Then these observations of yours do not apply to waste lands, or probably you would extend them to waste lands?—I have spoken of the lands inaccessible for want of roads, and these are waste lands to a certain degree, though a portion may be cultivated.

2608. By waste lands, you mean lands that give no profitable return at present, such as bogs?—My observation applies to both.

2609. How do you propose the roads through the great bog districts to be made?—Exactly on the same principle I have described; that is to say, the main leading lines of road at the public expense, and the branch or agricultural roads, at the proprietor's, the county and the Government. I would here mention a road, which, if completed, would perhaps be one of the most useful in Ireland, which was commenced about 50 years ago, at the expense of Government, but never persisted in; I mean the road known by the name of Mosses' Road, which was intended to open a new line from Dublin to Limerick, and which, if completed, would shorten the distance between those points about 10 statute miles. This road would run in a direct

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line from Dublin, and pass through the villages of Selbridge, Clane and Prosperous, where the Bog of Allen commences, and extends about 15 miles, I should think almost without meeting any hard land, though it passes very near to several gravel islands in the bog. This road would tend more than any other to improve those great bogs; they are at present quite inaccessible. If this leading line of road were completed branch roads might be made across other portions of the bog, to connect it with other roads in the country; these branch roads should be made partly at the expense of the proprietors, in the manner I have already described. These extensive bogs belong principally to the Duke of Leinster, the Marquess of Downshire, Sir Gerald Aylmer, and a great number of other large landed proprietors. Formerly the boundaries through these bogs were not known, but by the agreement of the whole of the gentlemen possessing estates therein, the boundaries were determinately marked out under my direction, for the purposes of the Ordnance Survey of Ireland.

2610. You have stated that at present mountain lands contribute to the county assessment; does not your observation enable you to say that the present assessments are most inequitably applotted on the different description of lands?—Certainly the present applotment is very unequal; but the new valuation now in progress under my direction will equalize the whole.

2611. Pray how soon do you expect that the valuation will be completed, so as to prevent this inequality?—I think the valuation of the whole of Ireland will be completed in about 10 years; at present there are five counties in progress. The valuation of the county of Londonderry is completed, and also considerable portions of the counties of Antrim, Tyrone, Down, Fermanagh and Donegal.

2612. Are the grand juries assessed according to this valuation?—The new valuation of the county of Londonderry is now in operation, and likewise that of the barony of Strabane, in the county of Tyrone; and the barony of lower Glenarm, in the county of Antrim, is also completed, and will be laid before the grand jury at the approaching summer assizes.

2613. Is there any way in which the benefits arising from a more equal valuation can be advanced before the period of the termination of the Ordnance Survey?—I think, by judicious management, an approximation might be made through the Tithe Composition valuation; but it would be only an approximation, because these valuations have not been made according to any regular principle, and some are valued on a high scale, some on a low scale, in order to equalize them. It would be necessary to make a valuation of some portions of each parish, so as to form a scale to enable the applotters to determine what additions or reductions should be made from the different parishes, so as to approximate them to the same scale. This system has been proposed by Mr. Musgrave for the county of Waterford.

2614. Suppose you were to impose a new tax on the community, such as poor rates, if you were to use the present valuation according to the grand jury system, would it not press very unequally?—Certainly. In some instances, the present county assessment amounts to the rent, in others, a trifle only is paid.

2615. You talked of a subscription of one-third from the landowners for making roads, and a third to be given by Government, and a third levied upon the counties; now, in order to raise the subscription of one-third, if only a certain portion of the landlords actually did subscribe, would you give a compulsory power respecting the others, who were unwilling or who neglected to subscribe?—Most decidedly I would give a compulsory power, and if they did not pay it willingly, I would go so far as to sell a portion of the land benefited to pay the portion which should have been subscribed.

2616. Then would you in every case in which the Board of Works thought it expedient and beneficial that a road should be made, and that Government were willing to subscribe one-third, would you give a compulsory power as to the one-third by the grand juries, and as to the other third respecting the landed proprietors?—I would give no power over the landed proprietors, unless two-thirds agreed to it and petitioned for it.

2617. Would you extend this power to the building of quays and harbours on the sea coast, and upon the banks and lines of the rivers and lakes?—Not on the sea coast, unless under peculiar circumstances, because I think small piers in such situations are rarely valuable, and are often carried away; but the power might be applied advantageously to inland rivers and lakes.

2618. In the same proportion?—Certainly.

2619. And subject to the same terms?—Yes.

2620. Do not you think it desirable to construct small piers on the sea coast?—I think it would be desirable to construct them where they would withstand the waves; but we have had melancholy examples of small piers erected at the Government expense which have been almost all carried away, which shows the impropriety of building *very small piers.*

2621. Has that not been owing, in a great measure, to the circumstance that there was no provision made for the maintenance of those piers?—I think that may have been partly the case; but the money expended rarely exceeded 500*l.* or 600*l.*, which was quite inadequate for the erection of piers capable of withstanding the Atlantic waves.

2622. If the sum was doubled, what would you say then?—That would depend upon the circumstances; if you are to make a pier in deep water, you can rarely do any thing of value under 2,000*l.*

2623. Do you not think it would be desirable, in cases of those piers, the county should contribute one-half the expense, and the Board of Works the other, when the pier was much wanted?—If a great public advantage was to be derived, I think the county should pay half; but I would not tax the county at large, if it were only for a local purpose.

2624. Placing the assessment on the barony or the district, would you see any objection?—No, provided the rate-payers of the barony or district applied for it, and I think in such cases the landed proprietor should also contribute.

2625. Would you in this case of making roads through those remote and uncultivated districts provide for compensation to be given for the land to be taken by the road?—Certainly not, in all cases of roads through those districts the land is so materially benefited that no compensation should be given; and in conducting the roads made in the southern districts in Ireland, amounting in length to 240 miles, I never paid any compensation; but in some instances the proprietors paid their own tenants when valuable land was taken.

2626. Would not a great benefit arise also to the country by the extension of canals?—Undoubtedly.

2627. Has it occurred to you where such extension or such construction would be most beneficial; in what part of Ireland?—I have not given the subject as much consideration as roads, but I think it would be beneficial to make a number of branch canals from the main trunks already completed. Those already made pass for their greatest extent through bog lands, which produce no traffic, except turf; and in consequence the Grand Canal derives little advantage from the transport of corn till it reaches Tullamore, 40 miles distant from Dublin on one branch, and Athy on the other, where it joins the River Barrow, which flows through a fertile valley.

2628. Has not one of the consequences of the canals being made, been the cultivation of the adjoining bog lands?—Wonderfully little, I think.

2629. What is your reason for so thinking?—Because the banks of the canal are not public roads, and there are inconveniences from the back drains.

2630. But have not canals been sometimes beneficial as a means of draining the adjoining lands?—They have, certainly, but not very frequently; I think in many cases the canals have been embanked where they crossed bogs.

2631. Would you mention respecting the Royal Canal what you consider the cause that the tolls of that canal are so very much inferior to the tolls on the Grand Canal?—I believe that the country through which it passes, or in which it at present terminates, is less rich, and produces less corn, than the district of the River Barrow, or of the King's County beyond Tullamore.

2632. Do you think it would be a desirable object to extend that canal across the Shannon into that rich district of country?—Certainly.

2633. Is it not also partly owing to the circumstance of the Shannon on both sides of the Royal Canal being very imperfectly navigable, whereas on both sides of the Grand Canal it is good navigation?—Certainly; but the banks of the upper Shannon do not produce much corn; the Shannon may be described rather as a chain of lakes than a river; and its flat banks, which in many places are very extensive, are overflowed in winter and frequently in autumn; and no means have yet been taken to embank it; so that hitherto little advantage has been derived from the very valuable low lands which border the Shannon and its tributaries.

2634. Is there not a steam trade that goes up the Grand Canal, while there is none on the Royal Canal?—There is a steam trade on the Lower Shannon, on Lough Derg, which is of great value to the Grand Canal; but as yet there is none on the Upper Shannon connected with the Royal Canal.

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2635. Have you had under your consideration the extension of the Grand Canal to Roscrea?—I have, and I think it would be a very desirable extension; a great part of the country is rich, and produces fine corn; but every branch canal from the main trunk, which opens a fertile country, must be highly advantageous.

2636. The main line is comparatively useless without feeders?—Exactly so.

2637. And you would apply that remark also to the main line of the Shannon?—Certainly.

2638. Would you improve the tributary rivers?—I would; almost all the tributaries consist of dead rivers, which could be easily made navigable.

2639. Are you acquainted with the River Suck?—I am; I made a survey and section of it under the Commissioners for the Improvement of Bogs.

2640. Might it not be made navigable to a great extent?—The River Suck might be made navigable at a comparatively moderate expense as far as Ballyforan.

2641. As between the two lines of railway, with a view to post-office communication and passage communication with America; namely, the one between Valentia and Dublin, and the one between Blacksod Harbour and Dublin; which do you consider the most eligible?—I have no hesitation in preferring the south-western one, that to Valentia.

2642. What do you think of the medium course, to take Galway?—I do not think the harbour of Galway is so well situated for the American trade as Valentia; it is farther north, and there is more difficulty in getting out. The harbour of Valentia has two entrances, one to the north, and another to the south, which is a great advantage.

2643. Would not all the difficulty be removed of getting out by having a steam-vessel in the harbour?—I think not, with a south-western wind, which prevails for at least nine months in the year, it would be difficult to clear the land without first sailing considerably to the northward out of the course.

2644. Do you consider, with reference to the general interests of the empire, that the establishment of a railway between Valentia and either Waterford or Dublin would be an object of national importance?—I do.

2645. Do you consider it would be justifiable for the Government to become shareholders with a portion of the national funds in such an undertaking?—I think it is a national work, to which the Government should contribute largely.

2646. Taking their share of the profit and loss?—Certainly.

2647. Taking it as a national object, is it not more an American national object than a British national object?—America certainly would be equally benefited, no doubt; and very likely the American citizens might contribute.

2648. They would contribute as passengers?—And they might also become shareholders in it as a speculation.

2649. You have directed your attention to the reclamation of waste lands in Ireland?—I have.

2650. You have yourself tried experiments in the way of reclaiming and improving land?—I have, but rather on a small scale.

2651. What has been the success attendant on those experiments?—The experiments have been tried on the Crown estate at Pubble O'Keefe, in the county of Cork, and hitherto the success attendant upon them has been very considerable, fully as great as I had anticipated; but the extent actually reclaimed does not exceed 20 acres.

2652. But the whole property is in progress of improvement, is it not?—No, only a small portion at the present time; my duty was to make the new roads, and the bog improvements were undertaken with a view to render the place suitable for the erection of a small village, which has since been built, and the greater part of the bog has been reclaimed, and is now under crop. I should think the progress of the land improvements has been retarded from a want of labourers; my chief object was the roads, and hitherto nearly all the people were employed on them.

2653. Are the roads completed now?—They are nearly completed, and at this moment we have about 120 people employed on the Crown lands.

2654. Of how many acres do they consist?—I think there are about 5,000 English acres.

2655. And have you constructed roads sufficiently through the interior of those 5,000 acres?—No, only one main line of road, which leads from Tralee to Cork.

2656. And you have reclaimed 20 acres of bog?—Yes, of deep bog, through which the road passes.

2657. Do you find want of hands at all seasons of the year?—Not at all seasons;

sons; a great number of labourers can be had in the months of January, February and part of March, also from the middle of June to the end of July; during the remainder of the year the people are employed in agriculture; for instance, last year, in the month of July, I had 1,300 people employed, and on the 20th of August not more than 50.

2658. Therefore, with respect to that part of Ireland, it is not an object for the outlay of public money, the occupation of the unemployed hands?—I have made roads, and employed the people during the last 12 years, in the counties of Cork, Limerick, Kerry and Tipperary, and I found that, generally speaking, I could not procure any number of labourers for more on an average than four months in the year.

2659. Then, with respect to those districts, there is no want of work except for merely four months in the year?—Certainly; and I think the observation applies to all Ireland, towns only excepted.

2660. The reclamation of these districts of land is entirely dependent on the construction of roads through them?—Entirely.

2661. Wherever roads have been constructed, the reclamation has taken place to a great extent?—Certainly.

2662. Is there not a sort of reclaimable mountain for the most part throughout the whole of the southern district?—The chief part of the surface is composed of bog, varying in depth from 9 inches to 3 feet, below which there is a clayey or sandy subsoil.

2663. What would you say was the amount per acre, on the average, required to bring it from its state of nature to a cultivated state?—I think about 4*l.* per statute acre.

2664. And what are the respective values of the different parts before and after that expenditure?—That depends so much on the elevation and aspect of the ground, that it is difficult to answer the question, but it would vary from 5*s.* to 10*s.* an acre when 4*l.* has been expended on it.

2665. That is, the rent becomes variable from 5*s.* to 10*s.*?—Yes.

2666. English or Irish acres?—English.

2667. Additional or absolute?—In absolute value.

2668. Do you find that the different aspects of mountain land, or land to be reclaimed, makes a very considerable difference in the expense of their reclamation?—Not in the expense, but in the value.

2669. You said you considered the expense necessary to bring that land into a state fit for cultivation to be about 4*l.* an acre; will you mention how you lay out that sum?—The draining of that kind of land would generally amount to 1*l.* an acre, and in some cases to 1*l.* 4*s.* per acre.

2670. In covered drains?—Certainly; the smaller drains should be covered; the remainder of the expense consists in trenching the surface, turning up the subsoil and mixing it with the bog; a portion is also burned to produce ashes for manure.

2671. You trench it altogether?—Yes.

2672. There is no occasion to put manure on it?—No, the ashes are sufficient for the first crop; it takes 4*l.* to dig, trench and prepare it for a crop; I am speaking of moory mountains.

2673. Would you think it desirable, with respect to Pubble O'Keefe, that the tenements at present held by the farmers should hereafter be sold to such of them as were able by their frugality to lay up the purchase money, either to be sold in fee or subject to a rent for ever?—I think it would be a very great excitement to their industry, and therefore a valuable arrangement.

2674. What description of farms would you consider most advantageous for the country to be so sold?—The extent of the farms must be proportioned to the quality of the ground; if the ground be valuable, farms of about 40 acres would answer, but if they be mountainous, I would make each from 100 to 300 acres in extent, according to quality.

2675. Such a measure would have the effect of creating a yeomanry in a district in which such characters scarcely exist at present?—None such exist at present.

2676. Generally speaking, there is scarcely such a thing as a proprietor in fee, among the poor or middling classes, in that part of Ireland?—I am not aware of any instance of a man having an estate of 40 acres, or any thing so small, who lives solely by the cultivation of his estate.

2677. Are you aware of such a class of men in the county of Wexford?—I am not;

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not; but I have heard of the industry of the people of the baronies of Forth and Bargin in that county.

2678. That is a well cultivated district, is it not?—It is; and the inhabitants are a very peculiar people and very industrious.

2679. Do you attribute that entirely to the circumstance of holding land in fee, and not under others?—I cannot say whether they hold in fee or not, but certainly the people are very industrious.

2680. Notwithstanding the roads made through this district, adjoining Pubble O'Keefe, is there not a vast district of country that is scarcely penetrable by roads at all?—At present there are a sufficient number of main lines of road in that district; that is, the district between the rivers Blackwater and Shannon; but branch roads in addition would be very advantageous. I conceive the public have gone far enough in that country; the landed proprietors should do something, and I think, as I mentioned at the commencement of my examination, that the landed proprietors should give one-third, the Government one-third, and the grand jury one-third.

2681. Are there not great tracts of mountain country between Newcastle and Newmarket, in the line of Pubble O'Keefe, in which there are scarcely any cross roads?—As yet there are no cross roads connecting the new main lines of road made by me through that district.

2682. How many cottages have been built at Pubble O'Keefe?—Very few as yet; we are now building four as models.

2683. And what quantity of land do you mean to allot to each of those cottages?—That department is not under my direction; but I think from 60 to 160 acres.

2684. Do you not consider that the bog and mountain land of Ireland is generally to be profitably reclaimed?—The reclamation of mountain land is very profitable and easily effected; but the reclamation of deep bog land is attended with a much greater expense, and requires both care and judgment.

2685. But both are?—Certainly.

2686. And both would give a successful return?—I think so, when judiciously treated.

2687. I believe you stated that some land has been reclaimed in the neighbourhood of Pubble O'Keefe?—Yes.

2688. Profitably reclaimed?—Profitably reclaimed as far as we have gone, but the extent is only 20 acres; and I do not conceive that to be sufficient to found any general conclusions on.

2689. Do you not conceive it would be an advantageous thing that the experiment should be made, both in bog and mountain land within a short distance of Dublin, in a central part of Ireland, which would be more accessible to persons in Ireland generally?—I conceive that sufficient experiments are now being made by individuals; and consequently the intervention of Government is unnecessary. Mr. Featherstone is now making a very valuable improvement, which I have seen, on as unpromising a bog as any in Ireland; and Mr. William Murphy at Lullymore Island, in the very heart of the Bog of Allen, near Mosses Road, which I have mentioned, is now draining, and I understand has drained upwards of 200 acres of deep bog in the most perfect manner, and is now about to commence claying it.

2690. Do you believe those gentlemen are keeping accurate accounts of the expenditure and value of the land previous to the commencement of those operations?—I have reason to believe that both are keeping accurate accounts of the expenditure.

2691. And such accounts as will be satisfactory to the public to look into, founding their calculations on the advantage of reclaiming bogs and mountains?—Certainly.

2692. And do you think that those two gentlemen doing so is equally, or more, advantageous, than if it was accompanied by engineers, under the direction of the Board of Works?—I think a Government experiment would be expensive on account of the agency. Private individuals give their own time; they have their own stewards, that are employed occasionally at other business, and it is only at certain seasons of the year that bog improvements can be carried on beneficially.

2693. You do not think more skill and capital would be used by Government than can be used by those individuals you have mentioned?—The system they proceed on is the same I have adopted at Pubble O'Keefe; but my observation with respect to agency does not apply to Pubble O'Keefe, inasmuch as I act for nothing, and my road overseer makes no charge; therefore the results on the Crown Lands, as far as they go, may be viewed in the same light as those conducted by private

private individuals; but if the Government were to undertake an experiment on a large scale in the Bog of Allen, the cost of agency would be considerable.

2694. Do you not think it would be more advantageous that all the expense of agency, of the higher or the inferior kind, should be charged against the reclamation, so that persons going to reclaim would be able to judge of the whole expense?—I think it would, but no man would employ an engineer to improve 20 acres of bog.

2695. When your proposal was that an experiment should be made on 300 or 400 acres of bog, and of 300 or 400 acres of mountain, in the vicinity of Dublin, or in the centre of Ireland, do you not think that two such experiments being made under the inspection of engineers employed by Government, and with the capital that the Government can afford, would be advantageous for the rest of Ireland, to show how it might be done in the best manner?—I think it would have certainly the effect of showing that bog could be improved; but I doubt much whether the public would place more dependence on it than on successful experiments carried on by private individuals for their own benefit.

2696. Is not the fact of the reclamation of bogs and mountains so established, that no experiment is necessary to persuade any scientific man of the possibility of carrying it into effect?—No doubt the practicability is well known, but few good results have been obtained; and I think the experiment, on a large scale, is now being tried for the first time in Ireland, by Mr. Featherstone and Sir William Murphy. There have been occasionally a few acres reclaimed by gentlemen close to their demesnes, but nothing for a profitable farming speculation has ever before been attempted.

2697. Are you aware the Dutch Company formerly offered to reclaim the Bog of Allen?—I am.

2698. Were you not employed on a survey of the bog in the year 1809?—Yes, to survey the greater part of the Bog of Allen, and also the bog of the south of Roscommon and part of those of Galway; also the mountain bogs of Wicklow, and part of Mayo.

2699. Were you not satisfied of the perfect possibility of reclaiming those bogs?—I was perfectly satisfied of it; but I was the more sanguine then than I am at present, in respect to the expense of reclaiming bogs perfectly.

2700. That refers to the flat bogs, and not the mountains?—Yes.

2701. What part of the expense has altered your opinion with respect to its being greater?—I now concur that it is necessary to lay on a greater quantity of clay or gravel than formerly.

2702. Can you say what quantity of clay is necessary, or what quantity you allowed in your Report?—Formerly I conceived that a coat of clay or gravel two inches in thickness was sufficient; I am now of opinion that to reclaim a wet spongy bog, four inches are necessary.

2703. What do you consider to be the cost of claying per acre?—About 6*l.* 13*s.* an English acre; but that will depend upon circumstances.

2704. You have mentioned the expense of reclaiming mountains; will you mention what you consider to be the expense of reclaiming deep bogs per acre?—I conceive the drainage of an English acre in the most perfect way to be about 1*l.* 4*s.* per acre, which is about 40*s.* per Irish acre, that includes the under drains; then the levelling and digging comes to about 1*l.* 10*s.*, and afterwards the claying, which amounts to about 6*l.* 13*s.* per statute acre. The clay is laid on four inches thick, by means of an iron rail-road. Thus the total expense is about 9*l.* 7*s.* per statute acre.

2705. What do you consider that acre would be worth after the operation; it was, I take for granted, not worth any thing before?—It was of no agricultural value, and so wet that it was dangerous to walk on. The land is situated in a remote part of the country; if it were in a cultivated part of the country, it would be worth 12*s.* 6*d.* per statute acre.

2706. Can you conjecture when these operations of Mr. Featherstone and Mr. William Murphy are likely to be brought to a conclusion?—Mr. Featherstone completes the reclamation of a portion every year; but Mr. William Murphy's, I think, will not be in a very forward state for three years to come.

2707. Do you consider four inches deep of clay to be necessary to the reclamation of a deep bog?—I do.

2708. Because it is a much greater proportion than is usually put on?—I know it is; but unless you put on that quantity, there will not be a sufficient strength of soil to grow crops; with equal portions of clay and bog earth you have eight inches

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of a good soil, but after a succession of crops the worked soil increases to 12 inches in depth, and then you have two-thirds of bog and one-third of clay; and unless you have at least that proportion of clay, the soil will be too weak, particularly when it is a flow bog that yields white ashes; but whenever you have a bog that yields red ashes, one-fourth of clay is sufficient.

2709. Do you not think a bog that yields red ashes would give you a greater crop without manure than flow bog?—Certainly.

2710. Do you not conceive that four inches of clay is more than the land can advantageously bear, and that in a great measure its effect will be lost by the sinking of that clay by its own weight to the substratum?—When the drainage is perfect, it does not sink. The process I would recommend is, to drain the bog two years before you clay it, and dig it and turn it up, and expose the surface to the winter frosts; by these means the bog becomes a vegetable soil, and is fit to receive the clay.

2711. Do you consider that the tendency of reclaimed land to revert to its original state, and to require breaking up and renewing of clay, is owing to the present system of not throwing sufficient clay on?—I attribute it chiefly to imperfect drainage; I think a bog reclaimed in the manner I recommend, and cultivated for four years, and laid down afterwards with grass, makes good pasture land, which will not revert to bog.

2712. Do you not consider that a bog when properly reclaimed is capable of yielding any crop whatever?—It will not yield white crops as well as stronger lands; it has a tendency to grow long straw, and does not yield so much meal; it will grow oats and rye better than any other white crops; but well reclaimed bog produces better green crops than any other kind of land.

2713. Cabbages, carrots and mangel wurzel, and all sorts of green crops?—Yes, every kind of green crop; but those specified require to be well manured.

2714. In your opinion, would money laid out in the better cultivation of lands already cultivated, give a more profitable return than in the reclaiming these waste or bog lands of Ireland?—I think the improvement of the land already in cultivation would be more advantageous and more profitable.

2715. In all cases?—Generally speaking.

2716. Is there any regular system of agriculture in Ireland?—It is improving very rapidly indeed; so rapidly, that I think tenants in some parts of the country paying the same rent now, when corn is half the price it was during the War, are as well off.

2717. Is that owing to the improved system?—Yes, owing to the great increase of the produce of their farms.

2718. In what part of Ireland do you conceive this improvement to have taken place?—In the province of Ulster particularly, but every where, very much in the county of Kildare. Farmers have told me that their farms now yield more than double the produce they did during the War.

2719. To what cause do you attribute this improved system of cultivation?—Partly to the general improvement that is taking place through the Empire, and partly to the necessity of greater industry, to enable the farmer to pay rent, owing to the low price of the produce.

2720. Do you attribute this improvement in any degree to the establishment of agricultural societies, which have been pretty numerous in the South of Ireland?—The effect has taken place independently of them.

2721. Do you not consider the great cause of it was the opening of the English market?—We had that during the War.

2722. You spoke of a period of ten years?—Yes, the great improvement has taken place within that period.

2723. By improvement in agriculture, do you mean by increasing the farms, paying a greater regard to fences, and the introduction of green crops, &c.?—I mean the introduction of green crops, and a better system of tilling the land, and keeping it free from weeds.

2724. You do not mean by increasing the size of the farms?—I am speaking of the same farms occupied by the same individuals, who in some cases pay the same rent now as they did during the War.

2725. Does it often occur that there are persons paying the same rent as during the War?—Very frequently, where they hold the same leases.

2726. Do you speak of farms leased during the War, or farms leased previous to the War?—The farms leased during the War have been reduced considerably, but not

not equal to the difference in the price of corn; and yet the people are quite as able to pay the rents.

2727. But during the War they were gaining a considerable profit?—Sometimes this was not the case; what I mean to say is, that the produce of their farms sells for nearly as much now as during the War, in consequence of the increased quantity.

2728. They are able to pay the same rents now?—Yes, some of them pay the same rents.

2729. Do you perceive a corresponding improvement in their houses and their mode of living?—Their houses and clothing are very much improved; I cannot speak as to their mode of living being much altered, though in the towns wheat flour is much more used than formerly.

2730. Are you not aware there has been a most extraordinary increase in the consumption of wheat and bread in Ireland among the lower orders of late years?—I know there has been a great increase in the quantity of flour used.

2731. You mean used in Ireland?—Yes, used in Ireland, and that since the War too; and since the depreciation of the prices the quantity of wheat flour used in Ireland has quadrupled.

2732. Are you not aware that in almost all the small towns in Ireland wheat and bread are now sold where they were not sold formerly?—I am.

2733. Do the poor people use oats for the purpose of making meal for their own use?—In some parts of Ireland to a great extent, particularly in the province of Ulster.

2734. Can you state to the Committee whether any and what steps have been taken in pursuance of the reports of the commissioners, of whom you were one, to survey the bogs?—I was one of the engineers. There has not been as yet much advantage taken of those reports; I know of only one remarkable instance, which is that of Mr. Murphy, who has carefully followed lines of drainage in the Bog of Allen laid out by me in the year 1809.

2735. He has followed your plans?—Yes, he is following the lines of drain laid down on my map of the bog.

2736. Has a survey been taken of all the bog and waste lands in Ireland?—No, not of the whole, but nearly the whole of the large bogs. The commissioners limited the survey to bogs of 500 acres in extent; but there are a great number of a less size.

2737. The whole of the bogs, amounting to 500 acres in extent, have been surveyed?—There were detached ones, no doubt, which were not surveyed.

2738. Would it not be beneficial if a survey was taken of the lesser bogs?—The Ordnance Survey will give the whole of the bogs in detail.

2739. Does the Ordnance Survey lay down a plan for reclaiming them?—It does not.

2740. Does the Ordnance Survey give you any thing but the surface?—The surface and some of the levels.

2741. Does it give you the substratum?—It does not.

2742. Would it not be beneficial, in your opinion, if these bog reports were published in a cheaper form?—I think it would be very desirable; they are very much sought after, and cannot be purchased.

2743. Are you acquainted with the district of Connemara?—I am.

2744. Are there not there more than 200,000 acres of land, which are capable of being reclaimed, and of yielding probably from 7*s.* to 10*s.* an acre more than they do at present?—Perhaps there might be half that extent; the high mountains could not be reclaimed.

2745. What do you think the average rental would be which that 100,000 acres is capable of producing, if properly reclaimed?—That would depend entirely on the expenditure laid out on it.

2746. Suppose the expenditure you allude to on the bog lands to be 9*l.* 7*s.* the statute acre, what then would it be worth?—The expenditure of 9*l.* 7*s.* per acre relates to flow bogs; mountain lands may be reclaimed at the rate of about 4*l.* per acre, and would then be worth about 10*s.* an acre. Connemara has very great advantages in point of situation, almost every part of that district being within a few miles of the sea, where there is an abundance of sea manure, sea sand, and sea weed; and lime also is abundant, interstratified with the slate rocks of the country.

2747. To what circumstance do you attribute that large district running so long

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in that wild state?—I attribute it in a great measure to the want of communications with the interior; till of late there were no roads through that district.

2748. The roads are not now perfected?—They are not; but considerable progress has been made towards their completion.

2749. Had these roads been fully perfected 10 years ago, do you not conceive that district would have presented at this moment a very different appearance from what it does now?—I conceive it is more favourably situated than any district in Ireland, much more so than the mountainous country opened by means of the road made by me, which has already derived so much advantage from those roads, which have been completed about seven years.

2750. Much greater facilities?—Certainly, it is less elevated; there is limestone every where, which is not the case with other districts.

2751. Is there a fine harbour for the export of the produce?—There are several harbours.

2752. Do you think in a district so circumstanced as that, it would be fair for the Government to say to the proprietor, we will lay out, say 20,000*l.* upon making the roads that are necessary, provided you will give up a certain portion of the land to be afterwards sold to the farmer and peasantry, in the same way I have suggested in the way of Pubble O'Keefe?—I do not think the Government should call on the landlords to give up any portion of their estates; but I think if the landlords saw their own interest they would contribute to the roads, on the plan I have suggested.

2753. When you say, you do not think it would be right for Government to call on the landlord to give up part of his estate, do you not think the Government has a right to call on the owner of an estate in a country to make that use of his capital which would be most beneficial to the inhabitants at large; and if a large portion of the people are starving for want of employment, would you think it a measure of justice for the landlords so to use their land as not to give them that employment?—I admit the case as stated is startling; but still I would not directly interfere with private property.

2754. If the proprietors were willing to accede to it?—There could then be no objection.

2755. Would it not be exceedingly to the advantage of the proprietors to make such an arrangement?—If two-thirds of the proprietors, in point of value, agreed to it, I would compel the remainder.

2756. If you were a proprietor yourself, would you not consent to such a thing?—I would prefer having all my land taxed for it to giving up a portion.

2757. Suppose the tenantry were not in a state to bear the taxation?—The improvement of the land would enable it to bear the tax, otherwise the road would fail in its object.

2758. Do you think it would materially tend to the improvement of lands in Ireland, if tenants for life were allowed to borrow a certain sum of money to be expended in improvements, and charge it on the estates, under a similar control as in Scotland?—Most decidedly; I think it most important, and many obvious improvements cannot be undertaken from a want of such a power.

2759. Can you state to the Committee the precautions with which you would accompany such a power?—I would limit the expenditure to one-tenth of the value of the estate, or it might be limited to two-and-a-half years' rent; I think a person wishing to improve his estate should apply to a Master in Chancery, or some legal authority; that the application should be accompanied by a plan in detail of what was proposed to be effected, together with an estimate of the expense. This plan and estimate should be submitted to the Board of Public Works, or some other Board capable of judging of them, and on their favourable report to the Master in Chancery, the landed proprietor might commence the work. Subsequently on the completion of the work, if it appeared upon examination and valuation that the improvement paid 10 per cent. on the capital expended, I would allow that proprietor to begin *de novo* on a similar improvement.

2760. Are you aware that Mr. Wyse brought in a Bill having precisely that very project in view?—I confess I never heard of it.

2761. On what ground do you prefer two-and-a-half years' rental to four years' rental?—Because I do not wish to involve the estate in the chance of an unsuccessful project.

2762. The inheritance?—Yes; but if the two-and-a-half years' rental was expended beneficially, so as to return to the property about 10 per cent., I would then

then allow a second experiment of the same kind, and so on *ad infinitum;* I would have no check, provided each successive improvement returned 10 per cent.

2763. Do you think any inconvenience might arise from submitting to the Masters in Chancery the check which you have proposed; do you think it would produce litigation or any other inconvenience?—I should think not.

2764. Do you think the check which you propose on the part of the Board of Public Works would be sufficient in the first instance; would it be a sufficient check?—I would limit by Act of Parliament the species of work to be effected; it should consist entirely of agricultural improvements, in the nature of drainage, embankment or cultivation of land hitherto uncultivated, to the total exclusion of all buildings; and I think, under these circumstances, there would not be much danger of failure; even if it did not succeed altogether, it must succeed in part.

2765. Would the interference of the Board of Works, or the engineer to the Board of Works, be attended with expense to the proprietors?—As the object of the Legislature is to encourage improvements in every way, it should be done with as little cost to the proprietor as possible. I think the salary of the engineer should be paid by Government; he should only charge his travelling expenses to the proprietor.

2766. You would require, whenever a proprietor was anxious to make certain improvements on his estate, that he should have the power of calling on the engineer of the Government to make a survey and inspection free of cost to himself?—I think where he can make a *primâ facie* case to the Board of Works, and it is approved by a Master in Chancery or some other legal authority, then the Board of Works should send down an engineer to survey the proposed improvements.

2767. And then he might lodge a deposit which would be equal to the expenses?—Yes, equal to the travelling expenses of the engineer.

2768. You have stated you would not include any buildings in the expense of the improvement of estates; on what ground do you make that observation; do you not think buildings are equally improvements with drainage?—I do; but they are perishable, and I do not wish to saddle the estate with them.

2769. Would you not give a similar power to lessees having an interest for three lives or 31 years?—I would.

2770. Under the same protection?—Yes; but I would limit the payment for the improvements to two-thirds of the increased value of the land at the termination of the lease.

2771. Would you not give power to tenants for life under those circumstances to borrow money from the Board of Works for this purpose?—I would, to the extent already recommended.

2772. Does not difficulty frequently occur in respect of incumbrances upon the estate?—Yes, certainly.

2773. Would you give a priority over all incumbrancers to the experimentor for a profitable outlay of money in the manner you have stated?—With the permission of persons who have lent money, but not otherwise, or with the consent of the majority of incumbrancers, I would.

2774. Are you aware, under the present Act, if only one-fifth of the incumbrancers agree that the security given to the Board will have priority, would you now limit it to one-half?—I was not aware of the enactment; but on consideration I think if the work be of great value to the estate, provided it did not exceed two years' income exclusive of taxes, I would give precedence to the loan from the commissioners; if a greater latitude were permitted, proprietors might find it difficult to raise money on their estates.

2775. Would there be any objection to give a priority to the sum borrowed for the purpose of reclaiming and draining lands over a particular portion of the estate to be reclaimed, leaving the priorities of the other securities over the remainder of the estate?—I think under these circumstances it might safely be allowed, and I think there could be no objection on the part of the persons lending money.

2776. Do you think the Government would be justified in lending public money in what would partake of the nature of a speculation?—Unless a strong case were shown I would refuse the application.

2777. Have you had any opportunity of ascertaining the operation of the poor colonies in Holland?—I have not seen them myself.

2778. You have read about them?—I have.

2779. Do you think it would be advantageous to establish poor colonies in Ireland with a view to the reclaiming of the bog and mountain land, and also to the

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employment of the able-bodied poor?—I do not think bog lands are advantageou situations on which to locate people. In wet seasons the quality of the produce is very inferior, and it creates fever. It has been frequently supposed that fever on boggy lands arises from the climate; I believe it to arise solely from the bad quality of the food.

2780. You are talking of lands in a state of bog which have not been reclaimed?—Certainly; I supposed you proposed to locate them on the principle of the poor colonies in Holland.

2781. Is not the land that has been reclaimed in Holland, on which these establishments have been formed, of the nature of our bog-land?—As far as I have read, those bogs are very shallow and not very wet, the sub-soil sand; with us the bogs are deep, the sub-soil marl or gravel, and it is a much more expensive operation to reclaim them on account of their depth.

2782. But your observation does not apply to bogs on the sides of mountains which are reclaimable?—It does not; you might locate people on the sides of mountains advantageously, provided you did not exceed the elevation of 800 feet on the exterior of the mountain, and of 500 feet in the interior; for I consider the climate of 500 feet in the interior is nearly the same as 800 feet on the exterior, owing to the frosts and fogs lying in the interior of the mountain at a moderate elevation above the sea.

[*The following Paper was delivered in by the Witness.*]

OUTLINE of a PLAN for defraying the EXPENSES of employing the DESTITUTE POOR of the Country Parts of *Ireland*, without increasing the present Assessment on Land.

IT would certainly be very desirable that the whole of the money granted for repairing baronial roads should be expended in the employment of the destitute poor, and this can be effected by intrusting the expenditure of the money for each barony to local committees, according to the following system.

It is to be observed, that the poor population of Ireland, even in the comparatively manufacturing districts of the province of Ulster, may be classed under the head of agricultural labourers, and such are very rarely left destitute and without employment, excepting in the months of January, February and part of March in the Spring, and part of June and the whole of July in the Summer season. At those periods there is little employment for agricultural labourers, and I am of opinion, that in those particular months, and in those only, it is necessary to provide employment.

It appears that an ample field for the general occupation of the poor, when most required, will be found in the repairs of the roads at present kept up by grand jury presentments. This species of employment affords a greater variety of labour than other; and individuals of both sexes, from the youngest to the oldest, can have suitable tasks allotted to them; women and even cripples can break stones for roads, and when accustomed to it, can earn good wages, at the usual prices paid for breaking.

The sum to be expended in any particular barony having been ascertained, and the particular works to be executed specified in detail by a county surveyor or baronial overseer, the barony should be divided into several districts, according to its extent and peculiar circumstances; the principal town or village (being as nearly as possible in the centre of each district) to be the meeting place of the district committee, who shall have power to appoint sub-committees to act under its direction.

The Protestant and Roman Catholic clergymen, and (in the province of Ulster) the Presbyterian clergymen, and the churchwardens of the several parishes within the district to be members of the district committee; the other members to consist of the landed proprietors, their agents and principal farmers and shopkeepers of the towns and villages, to be elected by the rate-payers to a certain amount. The district committee to consist of at least seven, and not more than eleven members; three to form a quorum; and the sub-committees to consist of not less than three nor more than seven members; three to form a quorum.

Weekly returns, containing the names of persons employed, showing the nature of the work performed and the sums paid to each individual, to be made out by the overseer of the sub-committee, and having been examined and certified by the sub-committee, to be forwarded to the clerk of the district committee. All repairs and new works should be specified and laid out by the baronial overseer, who is frequently to examine the works during the progress, and to make monthly reports, accompanied by a valuation of the quantity of work done in each district, and stating the manner in which each particular part has been executed; this report, when compared with the expenditure shown by the weekly returns, will afford a complete check on the sub-committees and their overseers.

It appears from a table made by me, and presented to the Tithe Committee of the House of Commons in the year 1832, that the amount annually levied in Ireland for making and repairing roads, is about 360,000*l.*, that the extent of Ireland is 20,400,000 British statute acres, which is, on an average, equal to 4½*d.* nearly per acre.

Let

Let us suppose that in the four months above mentioned, viz. January, February, half of March, half June and all July, there would be (exclusive of Sundays and wet days) 94 working days. If we divide 360,000*l.*, the amount of the presentments, by 94, we have as a product nearly the sum of 3,830*l.* to be expended per day, which sum, at 8*d.*, the usual wages paid to farming labourers in Ireland, would give nearly 115,000 as the number of pauper individuals who might be daily employed in repairing the roads for four months in the year. The population of Ireland, according to Census of 1831, deducting therefrom the cities of Dublin, Cork, Limerick, Waterford, Kilkenny, Drogheda, Londonderry and town of Belfast, amounts to 7,225,340, which would give about 1,445,000 men capable of labour, calculating one labourer for every five individuals, out of which it appears 115,000, or a little more than one-twelfth part of the whole population of Ireland capable of labour, could be employed during the period above mentioned, without increasing the present assessment on land; and throughout a great portion of Ireland, I am of opinion that the pauper population does not exceed one twelfth part of its inhabitants.

Richard Griffith

Fitzwilliam Place, Dublin, 14 March 1833.

Mercurii, 17° *die Junii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *Richard Griffith*, called in; and Examined.

2783. YOU are aware of the Act generally called Mr. O'Ferrall's Act?—I am.

2784. Has that Act been called into operation?—I believe it has not.

2785. Can you account for its not being called into operation?—Perhaps the machinery of it is a little cumbrous, which creates a difficulty in carrying it into effect.

2786. Would you recommend the powers given by that Act to undertakers, or individuals or grand juries, to be given to the Commissioners of the Board of Works, upon the application of a moiety of the landed proprietors interested in the reclamation of bogs?—I think the Board of Works should have the guidance of such works; and in fact I think that all works for which money may be granted or advanced on loan through that board should be conducted under its direction or control.

2787. Are there not vast quantities of land at this moment on sides and banks of rivers that might, by proper drainage and reclamation, be brought into cultivation?—There are; and I conceive that there are no lands in Ireland which can be made available at so cheap a rate as those level tracts which lie on the banks of rivers. They are naturally of a very superior quality, and in many cases they are totally lost from want of the removal of impediments in the course of the river, such as the weirs or dams connected with small corn-mills, which in proportion to their value, do more mischief than any other kind of works in Ireland. Within the last few years, large mills for the purpose of grinding oats as well as wheat, have been erected in many places, and the small corn-mills have thereby become of little importance, and for the most part are in a dilapidated state; consequently their removal would not be felt by the farmer. I know instances where several hundred acres of valuable meadow land are rendered almost a waste in consequence of a corn-mill weir, which mill is not worth 20*l.* a year; eel weirs also present impediments that should be removed. In the county of Kildare, where Mr. More O'Ferrall attempted to introduce his Act, the banks of the Rivers Blackwater and the Boyne present a very large extent of valuable land, which is now flooded, by impediments in the courses of those rivers, and I believe partly from the obstruction occasioned by corn-mill weirs.

2788. How do you propose to get rid of these obstructions, the mills and eel weirs?—I would have them valued by a jury; suppose a number of gentlemen in the country wish to improve their lands by draining, whether it be bog or flat land, on the banks of rivers; if two-thirds of the proprietors, in point of extent and value, agree to improve the lands by means of lowering the course of the bed of a river, I would give the Board of Public Works, if the proposed drainage was approved of by them, the power of summoning a jury to ascertain the injury to be sustained by individuals through the means of the proposed drainage, whether it be for land cut through, or for mills, or eel weirs, if any such required to be removed; and also to ascertain the proportion of the expense supposed to be paid by each proprietor of the land to be improved.

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2789. Does it frequently occur that a landed proprietor is desirous of improving his property, but that he cannot do so without the assistance of his neighbours?—It very frequently occurs, not only in respect of lands similar to those I have just mentioned, but also in bogs, where it frequently happens that a number of proprietors who would wish to improve, cannot do so, unless by passing through the estate of another proprietor, who will not join in the drainage; where that is the case, I would also give the Board of Public Works the power of making drains through the bog of the person who objects, and charging the estate with a portion of the expenditure; provided two-thirds of the proprietors of the bog in point of extent in value agree to improve the bog, and apply to the Commissioners for that purpose.

2790. Do you think it would be advisable if the Board of Public Works were authorized, or Government came forward to give premiums for the improvement of bog lands?—I think it would be most desirable; but I would limit the premiums to the reclamation of red or flow bogs, and the work to be performed should consist of perfect drainage, and subsequent covering with clay, to the depth of at least four inches; and previous to any premium being granted, one crop at least of some kind of valuable agricultural produce should have been obtained off the bog. The reason I recommend the latter clause is, that it is necessary to manure the bog with lime, stable or other manure, to enable it to produce a good crop, and such manuring increases the absolute cost of the reclaimed bog.

2791. To what extent would you give those premiums?—No premium should be given unless an extent of at least fifty acres of red or flow bog shall have been improved; and if the system which is considered the most perfect, and which I have just described, be carried into effect, I would recommend that a premium amounting to 20*s.* per acre be granted.

2792. Out of what funds payable?—Out of a fund to be allocated for the purpose by the public.

2793. Do you think a premium of 20*s.* an acre would be sufficient to encourage people to undertake to any extent the reclamation of bog, considering that it is in evidence before us, that the reclamation of bog such as you have mentioned stands at upwards of 9*l.* per statute acre?—I do think it would have the effect of stimulating persons to undertake such improvement.

2794. Do you not consider that Government opening the river would be of more advantage in the drainage of these bogs, and would be of greater encouragement than the small premiums you have mentioned?—I would do both; and I think, that in all great systems of drainage, and also in the lowering of important rivers, that the Government should contribute a considerable portion of the expense; I would encourage landed proprietors, by offering small premiums to induce them to improve the bogs subsequently to the main drainage being effected; but I would observe, that for the most part the bogs are so situated in respect to level, that they can be drained and improved without reference to the great rivers; but by removing obstacles in the great rivers, the adjoining lowlands, and those which are now liable to be flooded, and which, as I have already expressed, is of more value than any kind of land in the country, would be materially benefited. If it should appear from experiments that hemp or other plants of that kind can be beneficially introduced into Ireland, it will be on low marsh land on the banks of rivers, and not in the bogs, which do not contain sufficient stamina to grow such plants, unless manured and prepared in an expensive manner.

2795. By your former evidence it appeared, that the return to the capital expended in reclaiming bogs did not yield an annual profit of more than about six per cent.; would you consider it, under those circumstances, advisable for the public to advance large sums of money for the purpose of encouraging an outlay which yielded so small and incomparative a return?—When I stated that upwards of 9*l.* per acre had been expended in reclaiming the bog at Pubble O'Keefe, in draining and claying, and that I then valued it at 12*s.* 6*d.* per acre, I gave that sum as an estimate of the value during the progress of reclamation; but subsequently to the claying, the bog was manured with lime at the rate of 72 barrels per English statute acre, which cost 5*l.* per acre. This manuring will, I think, produce four crops, two of potatoes, one of oats, and one of meadow; and I anticipate, on the winding up of the accounts, that a considerable part of the capital expended in draining and claying and liming will have been repaid, and that on the fifth year the pasture land will be worth about 14*s.* per acre, and the nature of the soil will have been changed from spongy moss

to a good clayey moor, capable of producing excellent pasture and occasional meadow.

2796. Is there a tendency in bogs when reclaimed to return to their original state?—If they be not perfectly drained, they will deteriorate in a few years.

2797. Is it requisite to keep up a system of drainage at any considerable expense?—No; the system of under draining now adopted is not liable to fill up; the only drains which it will be necessary to keep open, are the external drains round the fields into which the under drains discharge.

2798. Can you inform the Committee the general rate of wages in Ireland for a day-labourer?—I should think it is about a shilling in Ulster, ten-pence in Leinster, eight-pence to ten-pence in Munster, and from sixpence to eight-pence in Connaught, as far as I know.

2799. You do not speak of the average wages throughout the year?—I do.

2800. Do you suppose that a poor man in Munster can be secure of getting wages throughout the year, if he is so disposed, at eight-pence a day?—Not all; I speak of the wages paid to the labourers that are employed.

2801. Are there any unemployed?—In certain times of the year there are. I think in my evidence on a former day, I mentioned that there were four months of the year in which there was not sufficient agricultural employment for all the inhabitants; in those months a portion of the people are usually idle.

2802. Can you suggest to the Committee any means of affording employment to the poor for those four months of the year in which employment is scarce?—I drew out a plan which has been printed in one or two Parliamentary Reports, the object of which was to employ the destitute part of the population of Ireland; those who possess no land, or not more than half an acre, in repairing the baronial roads, and on calculation I found there were sufficient funds at present raised by baronial presentments to employ one-twelfth part of the heads of families of Ireland for four months in the year.

2803. What proportion do you conceive that one-twelfth of the heads of families bears to that description of men you have described, such as have no land or not more than half an acre?—I have taken particular pains to investigate that fact. I inquired from gentlemen in the county of Derry, whether one-twelfth of the heads of families require employment at that period, and it is generally believed they do not. In the barony of Tirkuran in the county of Derry, the baronial presentments amount annually to 1,500 *l.*, and it was supposed that that sum was more than equal to employ all the labouring poor of the description mentioned during four months in the year.

2804. Those roads are at present repaired, and the same persons employed in the repair, repair them continually?—Certainly, the roads are now repaired, but not by the description of persons that I have mentioned.

2805. But by employing that description of persons, or those with whom you would contract, you would extract so much employment from some other class of persons, and therefore in no degree diminish the deficiency of employment that at present exists in Ireland?—I think it would; the persons now employed are farmers and their farm servants, who, instead of using proper material, employ their horses to go to a pit where gravel is easily procured, with which they cover the road instead of broken stone. These farmers and their servants would be more beneficially employed to themselves and to the country in draining or fencing their fields or weeding their crops.

2806. Can those defects of the farmers in repairing the roads that you have mentioned, take place under the present system, the presentments being under the superintendence of the county engineer?—No, not so much, but still the contractors may be of the same class as those who have heretofore repaired the roads, and I wish to take it from that class and put it into the hands of the destitute labourer.

2807. Would not the roads be improved themselves by this system at the same expense that you repair at present?—Certainly; I would employ the poorer class entirely in quarrying, breaking and spreading the broken stone on the roads; of course the stone must be drawn by hired horses from the quarries to the roads, but the main expense of keeping a road in repair is quarrying and breaking stone; and the latter is, generally speaking, so disagreeable to the people, that it is difficult to procure labourers who are not in want to undertake it.

2808. Then the result would be, that the roads would be kept in better order at the same expense?—Certainly.

2809. Do you consider that class of persons, men holding no land, or holding

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half an acre of land, as they are not the class of persons by whom the cess is paid, should have the preference to the exclusion of the cess-payers?—I conceive that the farmers who are cess-payers have abundance of employment on their farms, if they chose to improve their land; but they prefer the easier system of gaining money direct from the county, to the indirect one of gaining it by draining or weeding their fields.

2810. In forming your calculation, you have taken the amount of money applicable every year to the repair of the roads, at 400,000*l.*?—I have not, at present, data to say what the amount is, but I did make an accurate calculation, and ascertained that throughout the whole of Ireland the sum annually levied for the repair of baronial roads would pay for the employment of one-twelfth part of the population for four months in the year, giving each man 8*d.* per day.

2811. By what sort of administration would you conduct this expenditure, so as to supply those persons who may be designated as able-bodied paupers, with the employment you have described throughout those four months?—By local committees.

2812. Local committees acting for the baronies?—The plan I would recommend is, that the county surveyor or a baronial overseer, whom I hope to see added, for the assistance of the county surveyor, should make a valuation in detail of the money that is to be expended on each road throughout the barony; this valuation should be handed over to the local committee, who should employ the people on the different roads; at the end of each month the baronial surveyor should value the work that was done, as a check upon the committee, or as a check upon the overseer of the committee; and if it was found that the work performed was not in proportion to the expenditure, the work should be stopped, and referred either to the county surveyor or to the baronial committee; for it would be necessary when works of this kind are in a great part to be performed by the day, to have some check, particularly upon paupers, who are usually anxious to idle if they can.

2813. Your proposal would entirely do away with the system of contract, which is now the only system under which the public works can be carried on by the Act of 1833?—It would for that part, but not for every kind of presentment; as I would limit it to the repair of roads.

2814. Would you consider it desirable that parishes in Ireland should be entrusted with the power of sending to the baronial works such of their poor as were unable otherwise to find employment, the parishes contributing a certain proportion of the expense of maintaining that poor in aid of the county funds during the time that the poor were so employed?—If a poor-rate system was introduced into the country that might be adopted; but till that is done, we can only carry on the works with the money we have, and which, in a great number of instances, I fully anticipate, will be sufficient to meet the necessities of the case.

2815. Do you consider that it would be possible to find in every barony, or if necessary, a union of baronies in Ireland, committees qualified to undertake the superintendence of the roads within those baronies, assisted by the county engineer, or by the deputy surveyor, if it should be thought expedient to appoint them, as you suggest?—In large baronies no doubt of it; in smaller ones, two or three might be united together; each barony should be sub-divided into districts, in each of which, say in the principal village, a district road committee should meet at least twice a month during four months, or while the poor were employed; and such committee should have the selection of the persons to be employed, and the appointment of a local superintendent of works.

2816. Are you aware that we have not been able to get an attendance of the cess-payers under the Grand Jury Act?—I have heard it; and I have heard some cess-payers who had to travel 30 or 40 miles object to it on that account.

2817. We have failed in getting an attendance four times a year; do you think it likely to get such an attendance as would be requisite for the strict management of the roads as you have stated, which probably might be a monthly attendance?—Once or twice a month; but I confine it to four months in the year.

2818. How would you suggest that these committees should be made, by election of the rate-payers or grand juries of the county?—I think they should be elected by the rate-payers; that arrangement would produce confidence I think.

2819. You think that the rate-payers would not continue in successive years to elect those who would not attend to their business?—I think that a person who was elected by the rate-payers, or any individual who did not attend one half of the meetings

meetings should, as a matter of course, be discontinued, and another appointed in his place.

2820. You have stated your opinion that every barony in Ireland might employ upon its roads, that part of its population which is at present unemployed during part of the year; do you see any objection to a law compelling every barony so to employ its able-bodied paupers?—No doubt it would be necessary to have a special enactment to effect the object.

2821-2. Supposing there was a barony in which the assessment required for the repair of the roads was not sufficient to give full employment to the whole of the able-bodied persons in want of employment during that part of the year, would not some system of favouritism arise as to those likely to be selected for the employment who were tenants or friends of the principal persons in these baronial committees?—In a case such as that described, of course a selection would be made, and it is only to be hoped that those most in want would be employed.

2823. Is it not advisable, for the sake of the tranquillity of Ireland, that there should not be able-bodied men in danger of perishing at any time?—Certainly it is desirable that men anxious to be employed should not remain idle.

2824. That being the case, and since you are of opinion that very nearly, if not quite, the entire number of the labourers who are at any time unemployed, might be found employment profitable to the district in which they reside, do you see any great objection to going the further length of requiring by law that those who are in want of employment should be employed with a view of preventing the consequences of their continued idleness?—I think it would be desirable, but let us first try the extent to which the funds we have will go, before we make any compulsory enactments.

2825. The impression you wish to convey to the Committee is, that, without involving the landed proprietors of Ireland or the tenantry in any considerable security, that an increase of labour can be afforded to every able-bodied person in want of employment throughout the year?—I limit it to four months in the year; I do not mean to say that there are no persons out of employment except during those four months, but they are what may be considered the pressing months of the year; and I have found from the experience of twelve years, during which I have been employed by the Government in making public roads, that I could not obtain a sufficient number of hands, or any considerable number of hands, except during the four months I have mentioned.

2826. But if, in addition to the repair of the roads, other public works were undertaken in the nature of bog drainage, new roads, embankations of land upon the river, and other works that you have recommended, would there be full and profitable employment for the entire of the able-bodied population of Ireland?—Undoubtedly; and for that reason I would recommend the utmost exertion to be used in draining and improvement of all kinds, not only through the contributions of individuals, but by public aid, in the manner I have already described.

2827. Would you not recommend to the Commissioners of the Board of Public Works, with respect to the roads under their control, to adopt your suggestion as to the employment of those persons to whom you have now referred?—I would certainly wish to suggest to them the propriety of employing the persons who break stones to be of that class.

2828. Do you think it is possible for them to do so at present, as you know they enter into contracts; is it possible for them at a distance to carry such works into effect without entering into contracts?—I think they can do it, inasmuch as I myself, to a certain degree, do every thing by contract; I contract with each individual, or with three or four uniting, by the cubic yard for breaking stones.

2829. Would not the effect of bringing the bogs of Ireland into cultivation, and also those lands upon the sides of rivers, would it not have the effect of raising the price of wages in that country?—If there was a greater demand for labourers than the neighbourhood could supply, of course it would.

2830. Would not the effect of that be, that England would not be inundated, as it is annually, by labourers from Ireland?—Decidedly; in all parts of the country through which I have made roads, I have stopped nearly the whole of the labourers that were going to England, and employed them; at this moment I have about 1,000 men employed, one half of whom would have gone to England to seek work, had I not offered them work.

2831. Is not therefore this country very much interested in affording employment to the poor of Ireland at home?—There can be no doubt of it.

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2832. Would it not also have the effect of tranquillizing the country, and causing the administration of justice to be properly executed and respected?—That question has been put to me in various ways at different times by Government; and in three successive Reports which have been laid before Parliament, I have stated that in the mountain districts of the counties of Kerry, Cork, Limerick and Tipperary, where I have made 240 miles of road, when I commenced the works, they were the receptacles for robbers and outlaws, who could not be arrested, and that the people were idle and extremely poor; but that since the completion of the roads, the whole of the population has become industrious, and corn and agricultural produce of all kinds is now grown where formerly snipes or grouse were the most valued produce.

2833. If dispossessed tenants had a resource in constant employment, would they commit the outrages they are now guilty of?—I am certain they would not.

2834. Are you not aware that a great number of the agrarian outrages in the county of Clare arose from the difficulty which the poorer classes felt in procuring land for the purpose of sowing their potatoes?—I do not know the fact myself, but I have heard it attributed solely to that cause.

2835. In your opinion is Ireland over-populated, as far as its extent and resources?—I think not.

2836. You do not see any necessity for emigration in respect of Ireland?—I think if a judicious system of improving the land was adopted, that there would be sufficient employment for all the people of the country.

2837. But, in the absence of such a system, is not emigration a partial relief, where, locally, the population is so abundant?—Certainly it is a great relief, particularly to towns. I think it is more important to towns than to the agricultural population.

2838. Is not the populations of towns increased by emigration into them of destitute persons from the country who cannot find employment there?—It may to a certain degree, but I think it would be more advisable to assist in the emigration of people from towns than from the country.

2839. Might you not employ persons in the town in improving lands in the country, instead of sending them to America and other countries?—They are frequently distressed tradesmen, who are not much accustomed to country employment; and besides, I think, generally speaking, there are abundance of persons in the country who require employment.

2840. Then, in your opinion, there is ample scope for the employment of all able-bodied men of Ireland at home?—I think there is.

2841. And, in your opinion, they may be employed by a judicious system of public works?—Certainly.

2842. And in the cultivation of land?—Yes, the cultivation of land is the most important.

2843. Are the lands at present in cultivation, properly cultivated?—They are not, very far from it.

2844. If they were, would there not be provided a much more ample scope for the employment of the poor?—Certainly; I conceive that one hundred acres of arable land, if properly cultivated, would give employment to *ten families*, and at present *farmers* rarely employ more than four, and sometimes in the proportion of only three families to that extent of land.

2845. Then combining a proper cultivation of land with the improvement of the bog and other waste lands of Ireland, and also by employing the destitute in the manner in which you have stated, in the repair of the roads, you think the poor of Ireland would be sufficiently employed?—I think they would, but then it is to be observed the people of Ireland are rapidly increasing in numbers, and what may be sufficient at present, may not be at a future period.

2846. In your opinion would not there be an increase of cultivation according to the increase of population?—I think it is probable there might.

2847. Would this increased cultivation and reclamation of the land of Ireland have a tendency to promote population?—I think it would, unless the increased comforts of the people might induce caution, as it does in this country, and have a tendency to retard it.

2848. Would not the increased demand of labour, and thereby the increased price of wages have the effect of inducing the people to look after more comforts than they have?—I should think so; and I am of opinion that the people are now looking after greater comforts than formerly; they are better housed, better fed, and better clad than they were ten years ago.

2849. Then

2849. Then, in your opinion, the condition of the peasantry of Ireland would be raised by the means you propose?—I think it would.

2850. Do you consider that the state of agriculture in Ireland would be advanced if all manure was by law relieved from toll on turnpike-roads and bridges, as it is about to be in England?—It would be very desirable. I know instances where toll bridges very materially retard the progress of agriculture. I particularly allude to the toll-bridges of Derry and Waterford, and others might be mentioned. The lands on the opposite side of the cities of Derry and Waterford are not nearly as well cultivated, or as rich as they probably would be if manure was free of toll, and the tolls of the bridges would, in the end, be benefited by the great increase in the quantity of agricultural produce that would be brought into the cities to be sold.

2851. You are aware of the con-acre system in Ireland?—I am.

2852. Does not that arise, in many cases, from the want of manure?—Yes; owing to the poverty of the people they have no land of their own, and consequently they are obliged to pay so much an acre for land to plant potatoes on; the land may either be manured by the farmer, or burnt land, which will produce a crop without the addition of manure.

2853. What do they pay per acre for such land?—That varies very much in different parts of the country, say from 5*l.* to 8*l.* an acre.

2854. Is not the system of burning land in that way very injurious to the soil?—That depends upon the nature of the land; if it be moor it is not injurious, if it be shallow upland it is very destructive.

2855. Do you suppose that a family consisting of a man, his wife and four children, can be fed and maintained upon wages throughout the year of 8*d.* a day without the assistance of the con-acre?—Yes, under ordinary circumstances.

2856. Supposing him to buy his potatoes at the ordinary average rate at which they are sold?—I know that many do so, but if con-acre can be had at a moderate price, the labourer is better off by taking potatoe land.

2857. Are you acquainted with the Harbour of Valentia and the adjacent country generally?—I am.

2858. You are aware that it has been recommended by some of the first nautical authorities, that that is one of the best ports for a communication between Ireland and America?—I am.

2859. Are you sufficiently acquainted with the country and its neighbourhood to say what are the facilities for the construction of a rail-road from that harbour to a central district of the South of Ireland?—Near to Valentia considerable difficulty would arise in consequence of the nature of the country, but that only applies to the last 20 miles; to the eastward of that point no particular difficulty would arise.

2860. Do you consider that the formation of a railway from the most eligible eastern port to the most eligible western port of Ireland, for the purpose of a communication between this country and America, would be of great utility to the British nation in general?—That is a commercial question, and perhaps political one, which I have not sufficiently considered; but I think it would be of very great advantage to Ireland.

2861. Do you consider that the return of such a work, taking Ireland alone into consideration, would be such as to authorize the outlay that it is estimated would be required for such a work?—If Ireland was to be the sole object, I think a rail-road to Valentia would not answer; but a rail-road from Dublin or Waterford to Cashel, which would pass through the best part of Ireland, would probably become a remunerative speculation.

2862. Would not the line from Dublin and Galway be shorter and also easier of connexion than the line from Dublin to Valentia?—Yes, it would be shorter and perhaps easier of execution.

2863. Would it pass through a district equally fruitful and affording an equal quantity of produce to be transported, and an equal number of passengers to be conveyed?—It would not pass through so fruitful a country nor would it pass through so many towns, and consequently I think it would not be so good a speculation; at present there is a canal from Dublin towards Galway as far as Ballinasloe, and if there was to be any communication further westward, I should recommend either the continuation of the canal or a rail-road from Ballinasloe to Galway.

2864. The proposed railway, then, would pass through Cashel, and would be a main trunk to the cities of Kilkenny, Waterford, Cork and Limerick?—Certainly; and in selecting the line I would make a main trunk through the country, from which branches might be made to those towns without taking it direct to the towns, which might be inconvenient.

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2865. Is not the con-acre and burning system gradually exhausting much of the stability of the best soils of Ireland?—It is; where shallow soils are burned it is very injurious.

2866. Would not the employment of the poor on public works tend to prevent the necessity of their resorting to the con-acre system for a maintenance?—Yes; nasmuch as it would enrich the people, and they would not require it.

2867. It would enable them to live?—Yes, and increase the quantity of cultivated land.

2868. Would not labour be then profitably employed in improving the surface and increasing the value, which is now neglected and deteriorated in value?—Certainly.

2869. Are you acquainted with the College estates in the county of Kerry?—I am.

2870. Will you describe their condition?—The College estates are situated in three parts of Kerry; in the barony of Iraghticonnor, which is situated on the north, near the Shannon, in the barony of Dunkerron near Kenmare; and also in the neighbourhood of Valentia in the barony of Iveragh, the College possesses 50,000 acres of land in the county of Kerry, which is situated principally in the barony of Iraghticonnor. The land in that barony is in a wretched state of cultivation, and I think, as far as I can judge from the appearance of old houses and old improvements, that generally speaking it was in a better state 50 years ago than at present.

2871. To what cause do you attribute the circumstance of that district has not advanced in a similar degree with the rest of the country?—To the nature of the tenure chiefly.

2872. Will you describe the nature of the tenure?—It is similar to the tenure given by Bishops; the leases are for 21 years, and they are renewed once in every three years, when a renewal fine is paid.

2873. You think that such a tenure has a tendency to discourage the improvement in land in Ireland?—I think it has; and I am of opinion that it would be desirable that the College as well as the bishops should have the power of granting long leases, under proper restrictions.

2874. Besides College lands, are there not large possessions belonging to the trustees of Erasmus Smith?—There are.

2875. Are they situate in the same manner?—To a certain degree; I have had much communication with the Board of Trustees of Erasmus Smith's Charity, and I have found them very attentive to the improvement of land; considerable reductions are made to the tenants for certain improvements, and frequently improvements are undertaken at their own expense. I know one that was effected at a considerable expense in the county of Limerick; particularly embankments along the Bilboa River, which have produced very valuable effects in saving the adjoining lands from floods.

2876. In your opinion, would it not be beneficial if a larger power was given both to the College and the Trustees of Erasmus Smith's School?—I think it would.

2877. To what extent would you go in the way of leasing?—From 60 to 99 years.

2878. Would not the consequence be a better cultivation and improvement of the land?—I think so.

2879. The College has estates in Galway also, has it not?—I do not know, but it has estates in other parts of Ireland.

2880. You have not observed the same disposition on the part of the College to improve their land, that you have described in the case of Erasmus Smith's Trustees?—I have not.

2881. Will you describe, in detail, the process which you adopted in the reclamation of the bogs at Pubble O'Keefe, upon which you are now making experiments?—I have not the detail with me, but I will send it to the Committee immediately after my return to Ireland.

John Spencer, Esq. called in; and Examined.

John Spencer, Esq.

2882. YOU travelled throughout a considerable district of Ireland last year, as an assistant commissioner on the Irish Poor Inquiry?—Yes.

2883. Did you turn your attention to the subject of the fisheries in Ireland?—I did a great deal, purticularly in the counties of Clare and Mayo.

2884. Have you reason to suppose that the fisheries have been taken advantage of

of to as full an extent as they are capable of affording employment to the poor, and adding to the resources of the country?—By no means.

2885. To what circumstance do you attribute the want of attention to such an important source of national wealth?—The deficiency appeared to me to have originated principally from the poverty of the lower class of fishermen, and from the commission of the Fishery Board ceasing, which took place in 1830.

2886. The Fishery Board was in the habit of granting bounties?—Yes; the Board was in the habit of granting bounties, which ceased on the 5th of April 1830.

2887. Has there been any decrease in the fisheries since that period?—By all the accounts that I have received, it is evident that the decrease has been very considerable.

2888. Your inquiries had reference to the fishing on the coasts of Mayo and Clare entirely?—Yes; and I would wish to add, that they are private inquiries, and were not in my instructions; therefore I cannot speak to them so pointedly.

2889. Have you formed any estimate of the number of fishermen employed at present on those coasts?—From the observations of the men I have examined, I should think there may be probably about 3,000, not more.

2890. Have you had occasion to observe a want of accommodation in the way of piers on those coasts for the fishermen?—I have, very much so.

2891. Does the sun-fish or the whale visit the coast of Ireland?—The sun-fish at about ten leagues off the west coast of Clare frequent it every season, which is in the month of April.

2892. Was the result of these inquiries such as to induce you to believe that these fisheries might be prosecuted with success upon that coast?—It is my opinion, to a very considerable extent. If the fishermen were well supplied with fishing tackle, Kinsale hookers and other boats, great advantage would accrue both to the public and to themselves.

2893. In what way do you think that it would be in the power of Government or Parliament to assist in this description of enterprise?—Government might, partly in the way that they did before, by forming a Board of Commissioners, and purchasing Kinsale hookers, tackling and other things necessary for fishermen, and lend them out on security, which they might easily do to the fishermen generally throughout the coast.

2894. Do you think that English capital could be turned with advantage, and considerable profit, to the Irish fisheries?—I do; there is a field open for the supply of England and Ireland, the West Indies, and most of Europe, and 80,000 or 100,000 expert fishermen would find full employment, and give support to a million of persons.

2895. The Board of Public Works in Ireland have, you are probably aware, recommended the appointment of a local commission for the purpose of inquiring into the Irish fisheries; are you of opinion that such a measure would be beneficial?—I am quite sure that such a measure would be beneficial, inasmuch as it would pourtray those advantages that cannot be brought forward to the public view in any other way.

2896. Do the Dutch, French and other vessels fish on the west coast of Ireland?—By a letter that I have lately received from Lieutenant Boroughs, commander of the coast guard, I am informed, that he has lately seen a Dutch fishing vessel on the coast of Clare. Another letter of this gentleman's, containing very valuable information upon that subject, I would beg to read some extracts from: "Sir,—An article contributed to the United Service Journal in December last, on the subject of porpoise fishing, induces me to send you the following remarks on the fisheries of the north-west coast of Ireland, from the north islands of Arran to Killala, principally on the coast of Connemara and Mayo. At the period when Cromwell had kicked the Dutch away from this coast, and erected forts of considerable strength and beauty in the islands of Arran and Innisbofin, to prevent their re-assuming these stations, the fisheries seem to have dwindled into progressive insignificance, and are at this moment totally neglected. The station or harbours which they frequented appear to have been the islands of Arran and Boffin; the fort erected at the entrance of Boffin harbour must have rendered not only the harbour but the entire island impenetrable, as it commands the entrance of the harbour; and the only beach on the island where a landing could be effected, and only distant a short half mile; the other coasts of the island are one chain of iron-bound cliffs and inaccessible rocks. The harbour of Innisbofin is the best and

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safest I have ever seen for all vessels under 150 tons, and would contain 200 of different sizes, and is situated in the centre of the fisheries; there are many other capital harbours opposite on the main land. This island is now the property of the Marquis of Sligo, a nobleman who orders every accommodation to all strangers who may visit the island for business or curiosity. It is very extraordinary, and still very true, that this coast (one of the best fishing coasts in Europe, abounding from the most productive whales, both spermaceti and Greenland, to the common herring), possesses the worst and most ignorant race of fishermen, and (with a few exceptions) very indifferent boatmen. But the cause of these remarks may be easily accounted for, their poverty, which prevents them from procuring proper stout vessels for so dangerous a coast, and almost total absence of all patronage and support to follow up with energy and spirit the unbounded sources of wealth which nature has thrown within their grasp. It may appear still more extraordinary to those connected so expensively in the Greenland and South Sea Whale Fishery, that they should so long have remained in the ignorance that those fish abound on the coast which I have described. In order to give proof to so bold an assertion, I shall state some circumstances which came under my own immediate observation in my own vessels, and a subsequent period in command of a Revenue cutter prior to this fine class of vessels being placed under the inspection of rulers in the Custom-houses of London and Dublin. I shall first observe respecting the whales, to prove beyond contradiction that they abound in the summer and autumn on this coast. In company with the Rev. Mr. Mahon to the sun fishery at Bofin Island, we strayed on a blustry day to observe the coast and breakers; at a short distance from the shore we saw several large fish, which I supposed grampusses or finners, and had taken shelter under the lee of the island; still looking closely at them, they advanced towards the rocks immediately under the cliffs, where we had a perfect view of them at a distance of 500 yards with a spy-glass, their double-tufted heads quite conspicuous, and no intervening back fins; I concluded at once their species. In the month of July, after the sun fishery, a large spermaceti whale was drifted on shore dead at the Bay of Bunowen, in Connemara, about two leagues from Cliffden or Ardbear Harbour; in consequence of the ignorance of the peasantry and boatmen, and continual squabbling and fighting, three-fourths of the oil was lost; the surface of the bay was dyed with a rainbow tinge from the floating particles of oil; shortly after an immense fish was towed into the island of Turk by three of the island fishing boats; the monster was observed floating about a mile from the island, and had been but recently killed, but how, could not be ascertained; this fish completely filled up the small and only inlet in the island, and measured in length thirty-three yards; it was claimed by the proprietor, I believe the Archbishop of Tuam, who, I had been informed, gave it up to the islanders. A small village near the place where they had towed it to shortly became deserted, the inhabitants never calculating on the fœtid air caused by their imprudence. The islanders were two months employed in cutting up and launching over the cliffs the bones and remains of their prize. About the beginning of August, after having taken shelter from a north-wester in Blacksod Bay, I was ordered by the captain of the Harlequin, 18-gun brig, to proceed with his purser, Mr. Sparling, to West Port (I mention this as a proof of my recollection); in beating down the bay with light airs, and near the islands of Inniskeas, two large whales came nearly alongside the cutter; the day very fine, and making but little way, I ordered the gig and jolly-boat out and pursued them, and had I men sufficiently acquainted with the art, I should have succeeded in killing them; they allowed me to go alongside them; and I had only desisted from striking them by the bowman, who intercepted me at the moment by panic, fearful of the event of a lash of the tail. What the result might have been I know not, but nothing could have been easier accomplished than striking them, and only in 15 fathoms water. I had been after these whales three hours, and they never went above about 300 yards from our boats, and at that distance turned their huge heads towards the boats, and got wary. I gave up following towards evening; had I struck them at the commencement of our chace, when they were perfectly tame, I might have succeeded, even with the sun-fish spear and line, owing to the small depth of water. I will now advance one more proof of the whale resorting to this coast. In the month of August, cruizing off Broad Haven, county Mayo, I fell in with a perfect fleet of whales, which surrounded the cutter; I would say about 15, probably more. About the 15th of April the ponderous fish make their appearance a few leagues west of Innisbofin; their length in general is from 40 to 50 feet; they in fine weather come to the surface about

about one or two o'clock afternoon, and remain so until about nine next morning, and again rise at the same hour; they are struck by a rudely constructed spear, with a wooden shaft. Three lines of inch-and-half rope, each line about 40 fathoms long. These fish are easily struck by keeping behind the back fin; their eyes are so placed they can only see directly forward. They appear in immense numbers; I have seen, at times, leagues around the surface actually speckled with them, and at the same time about 200 boats from different parts of the coasts of Galway and Mayo, each boat having a fish harpooned, which is known by the boat lowering down her sails; it generally takes about four hours to kill a single fish. This depends much on the activity and caution of the crew, both of which are necessary in taking these fish, for should they bear too hard on the harpoon before the fish is exhausted, the spear is apt to give way, and the fish sticks close to the bottom, and must be forced up; when at the surface he is again struck and secured on his back alongside; he is then cut across the breast, and next longitudinally; a rope is then made fast to the strong tendon, which connects the two lobes of the liver, and is disconnected from the internal part of the body. A small pull draws it out; it is then cut into large pieces and barrelled until the opportunity offers to render it into oil. Each liver averages a ton of oil, of the best kind, and without the slightest smell; this oil is far superior to any fish-oil I have ever seen. I have killed six of them at different seasons, choosing out of the flock the fish with the largest back fin. They are a species of shark; they remain six weeks on the coast, perhaps longer; they then go to the northward. It is rather curious that these fish, when struck, tow the boat due north; this fishery also has been neglected these last five years; nor even have the fish been looked after. The fishermen on the coast are too poor to fit out their boats with the trifling apparatus; and when they did fit out at Galway, and got the necessaries on credit, if they had not been fortunate, their boats on their return were seized and sold by the creditor. During my three years' cruizing on the north-west coast, I had been ordered by Lord Colville, then commander-in-chief at Cork, to take (according as my other duty might permit) the protection of the fishermen during the absence of the Plumper gun-brig, which vessel had been ordered to Plymouth for a refit. This circumstance gave me an opportunity of observing closely the manner in which it had been conducted; there were generally about eight schooners or wherries, fitted out from the Skerries, situated at the opposite side of Ireland, with crews of ten men each; their lines sometimes extended to the length of ten miles; this depended on the state of the weather; their large stacks of fish at Bofin and Blacksod Bay consisted in cod, ling, glapen. The skates were also saved, and used as slates to protect the other fish from rain; they generally went back at the end of summer with a full freight, and sold in the Dublin market. The fishermen on the immediate coast were seldom or ever employed by them; they were considered perfectly by these expert fishermen, and even never profited by the example which was daily before their eyes. Each boat was provided with a thrale to procure bait, which were chiefly congers, turbot and plaice. Their provisions consisted of bread oatmeal, and tea; of course, abundance of the finest fish. If at any period a company should start up to try their hand at these valuable fisheries, I would recommend the following preparations. The expense to a company would be trifling, and might lead to a greater scale. Two fast sailing schooners, of 150 tons each, provided with every article for the whales and sun fishery; each vessel to have attached to her four whale boats, and manned with expert and approved whalers. They should rendezvous at Innisbofin. I have already remarked they should arrive at the island about the 15th of April. Each crew should consist of 24 men, in order to full-man each boat, particularly for the sun fishery, which would occupy all the boats. Each vessel should have two large boilers, and should be well provided with casks, and partly ballasted with salt, or even laden with that article, which could be stored on the island; the frequent want of which I have often observed, caused the loss of hundreds of barrels of herrings, and were afterwards used as manure."

2897. Are the fishing piers well built, the sites properly chosen, and are they kept in good repair?—There are few fishing piers on the coast of Clare, Galway, or Mayo, and those in general badly constructed, and the sites badly chosen.

2898. And many of them falling out of repair?—Yes; some of them falling to decay. At Seafield the fishermen can approach only at spring tides, so that, in fact, this one is partly useless; but if a sum of money of about two hundred pounds was expended upon it, it would open the passage, and perfect security would be given to the whole of the fishermen of that neighbourhood, and to very large

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large vessels besides. Captain Marshall of the coast guard has given a statement to me that two hundred pounds would be advantageously laid out in opening this reef of rocks, and that eighty fishermen had given in an offer, each, of three days' labour gratuitously, to perform the whole of the work. There is another pier at Liscannon, and there is one in the great isle of Arran, which would very much assist the fishermen if some expense was laid out upon it. And in the south isle of Arran there is a safe place for all fishing vessels, if an approach could be obtained by cutting through a reef of rocks of two hundred and sixty-three yards; this may be called a dock, in the form of a triangle, having three sides, about five hundred yards each, having seventeen fathoms of water and good holding ground, where a vessel of any size might ride in great safety, and at any point of the wind. These two hundred and sixty-three yards of rock would, probably, be cut at the expense of two thousand pounds, by which it would become one of the securest places on the coast of Clare, or within a any distance of Galway. On the coast of Connemara there are very few piers, in Blacksod Bay there is one; there are none in Broad Haven Bay, which are very much wanted.

2899. Have you formed any estimate of the number of piers which would be required along that coast?—There are only about 12, I believe, and a much greater number would be very useful.

2900. Between what limits do you speak?—Between Loop Head and Blacksod Bay and Broad Haven Bay.

2901. Have you any return of the number of persons engaged in the fisheries in Ireland?—I have one which I have taken from the Tenth Report of the Commissioners on Irish Fisheries, showing an increase of 27,262 within eight years, the numbers being in the year 1829, 36,159, and in the year 1832, 63,421, viz.

5 April 1822 - - -	36,159	5 April 1826 - - -	57,805
Ditto 1823 - - -	44,892	Ditto 1827 - - -	58,044
Ditto 1824 - - -	49,448	Ditto 1828 - - -	59,321
Ditto 1825 - - -	52,482	Ditto 1829 - - -	63,421

2902. Have you paid any attention to the waste lands in the counties you have visited, with a view to their improvement?—In passing through the country I have paid some attention to it.

2903. Have you any suggestion to offer upon the subject?—I think one great improvement would be, in the first instance, that all the boundaries between proprietors of bog and waste lands should be throughout Ireland ascertained and settled by Act of Parliament.

2904. From your observations in Ireland are you of opinion that the improvement of the country may be materially advanced by a judicious expenditure upon public works?—Certainly.

2905. What description of public works do you consider most desirable?—I should recommend roads being made in every part of Ireland that could be done judiciously, for I think that would prevent illicit distillation as much as any thing by giving facility to bringing corn into the market, which they have not the means of doing now for want of roads.

2906. As assistant Poor Law Commissioner, have you been lately inquiring into the state of the poor at Munster and Clare?—Yes.

2907. Is there not a great want of employment for the population there?—Yes, there is a great want.

2908. And you would recommend there being a system of public works under the superintendence of a board?—I should recommend the improvement of the country by all means, by public works of every sort that could be adopted, under the superintendence of the Board of Works.

James Naper, Esq., called in; and Examined.

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2909. DO you reside in Ireland?—Yes, I have resided for 20 years in Ireland.

2910. Are you not a large landed proprietor there?—Yes, a considerable landed proprietor.

2911. Have you turned your attention to the system of public works, and also to the improvement likely to arise from encouragement in that way?—I have done so.

2912. Has there been any public work executed in your part of the country?—None, that I am aware of.

2913. Is there any want of roads in your district?—No, there is no want of roads.

2914. What

2914. What part of Ireland do you reside in?—The county of Meath.

2915. Are there not parts of that county which might be very much benefited by a system of drainage?—There are very few farms in the county of any extent that would not be benefited by a system of drainage.

2916. How does it happen that they are not properly drained?—There is a great difficulty in the way of getting the landlords to unite in any system of drainage.

2917. In your opinion, might not a very salutary power be given to the Board of Public Work for that purpose?—I think it might.

2918. How would you propose the expense to be defrayed of such an undertaking?—I would propose the expense to be defrayed by a per centage upon the income of the landlords.

2919. Do you mean according to the benefit to be derived to the land so to be drained?—No, I do not; I conceive, that if the present system of road-making, which is now under the superintendence of an engineer, if that system, instead of being performed by contract, was performed by day-work, under a general system of road-making throughout Ireland, that we should have a mode of work very superior to any thing yet introduced. I would suggest that the cess, which is now paid by the tenant for repairing and forming new roads, should be paid by the landlord, and I would add cess for public drainage also. I do it upon this principle, having found where the tenantry were making improvements in the way of fencing that when they came to the present roads, they have had great difficulty in making those drains work. Having as a landlord, in more instances than one, introduced an extensive drainage, in conjunction with other landlords in my neighbourhood, those drains have generally exceeded in expense the first estimate, and the landlords have been so much disappointed at finding greater charges laid on them than they were led to suppose were necessary for the purpose, they have refused to keep those drains open, or to take any steps to render them advantageous to the land through which they pass.

2920. Are you speaking of main drains at present?—I am speaking of main drains between the different estates.

2921. Under what description of administration would you place the expenditure of the road and drainage cess?—I would suppose, in the first instance, that the engineer laid before the baronial committee the plan of the drainage, together with an estimate of the necessary expenses.

2922. Would you propose that that taxation should extend to land that did not want draining, as well as that which did want draining?—I should propose it should be a general taxation on the barony.

2923. Would it not be hard on those persons whose ground did not want any draining whatever, and would it not make of more value lands that did want draining, that are at present of great value?—As this would be a permanent tax upon the landed proprietors of the barony; in the first instance, many of them, particularly those whose property is in a state of good cultivation, would not be benefited, yet, as the tax would be placed upon the income of all, a considerable sum would be expended, and after the system of drainage had been completed, many other objects might be brought to bear, and this tax might eventually embrace a method of altering the fencing, and the introduction of water, instead of taking it off.

2924. By whom do you think the barony committee should be appointed?—I think the baronial committee should be appointed upon the same principles as the present barony road committee.

2925. Elected or nominated, and consisting as at present of the magistrates and the cess-payers?—Yes, of the magistrates and cess-payers.

2926. Consequently you would take the baronial session as at present constituted?—Yes; for the purpose of approving of the works, the whole would be laid before them. I will suppose 500*l.*, for the sake of example, was raised by a certain barony for the purpose of these public works, and that it was expended in repairing and laying out roads, and a system of drainage; but as the income of the barony increased, so would the sum to be expended.

2927. I understand, then, you would levy a fixed per centage cess on the rental of the barony, without regard to the particular demand for expenditure in one barony over another; you would have the same per centage levied all over Ireland?—Yes, the same per centage; the object being to place on the landlords that part of the baronial cess at present paid by the tenants for the repairing of roads.

2928. Since there are some baronies in Ireland that require an expenditure of this kind more than others, would it not be better to tax them in proportion to the

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expenditure required for those general objects?—It is not intended that the proposed cess should be so high as to meet the expense necessary for making the new roads or large drains; it is for the purpose of laying them out on a general and extended plan, to which the parties most interested should contribute their just proportion; if, for instance, there was a barony where there were very few roads, and in which the rental was very low, the landlords' tax there would not work to the advantage it would in a highly cultivated barony; it would have this effect, it would enable the engineer to lay out a fresh line of road, to which the attention of all the proprietors of the barony would be called; the sum would be too small to make the roads, and then I conceive the Board of Works would come in, and approving of the line of road, the proprietors, if they chose to have it made, might raise a sum of money for the purpose, and as soon as the roads were made and the barony became a cultivated barony instead of a wild one, then the Act which is working profitably in highly cultivated parts of the country would come into full operation.

2929. As I understand the taking a certain per centage on all the baronies in Ireland, you would have a large sum to lay out in the barony that required the least, and a less sum to lay out in the uncultivated barony that required the greatest expenditure?—Yes, upon the principle that the uncultivated tracts are those which have the least means; if the rental is small and the landlords wish to make a great improvement, they must borrow money.

2930. Would not it be as well to leave the barony properly managed at present and requiring little expenditure to go on as it does now, and to levy a tax upon the unimproved barony in proportion to the public works required upon the spot?—I believe there was a Bill brought in by Mr. O'Ferrall; that Bill has been little worked upon for this reason: the landlords are unable, without united exertions, to do that in their own barony which renders them anxious to take advantage of Mr. O'Ferrall's Bill; unless you can make drains through the barony on which you have property in conjunction with landlords in that barony, you cannot make use of Mr. O'Ferrall's Bill. Lowering the lakes or scouring the rivers is a matter of consideration for the Board of Public Works, and an engineer would say, "We cannot open the drains in this barony, because such a river is too high; a certain expenditure would enable us to lower this lake or that river, so that we might open the drains sufficiently. The great rivers and lakes must be a county concern, and the counties might cess themselves for the purpose. We want the concurrence of landlords to do individually what it is the interest of counties to do collectively."

2931. It has been suggested that the reclamation of bog and mountain lands would be carried to a much greater extent than at present, if landlords under strict settlement had the power of charging the estates with a certain portion of the money expended by them in permanent improvements; do you think there would be any objection to such a power being given, provided it was guarded with proper checks and controls?—No; I think it would be highly desirable.

2932. Would it not be a plan that would appear to answer the ends you have in view, if, instead of levying a per centage throughout Ireland, you were to allow the majority of cess-payers either in number or value of each barony to tax the whole barony for the execution of these public objects, the making of roads and the effecting of drainage, which you have stated as desirable?—My objection is, that you would not be able to introduce a general system; it strikes me that in England they shut up the energies of the country by resorting to the system of parishes; they are unable to work any great line of road or drainage without obtaining the goodwill of the different parishes, who imagine they have all separate interests. In Ireland we are not hampered by the parish laws of this country, and it seems a great object now, that main drains and useful roads should be carried on by skilful persons through all property, so as not to come in contact with local prejudices.

2933. Inasmuch as the baronies are more extensive in Ireland than parishes in England, would there be any danger of a want of co-operation in two contiguous baronies in any great work, or, if it existed, might it not be removed by general powers being given to the Board of Public Works to execute large improvements in whole counties?—Certainly; if sufficient power was given to the Board of Public Works, that would prevent it. I strongly feel the necessity now for some kind of taxation that will reach the receivers of rent. I find in so many instances in Ireland the landlord that is most injurious to the country is, not the absentee landlord who is master of his own property, but the persons who derive large sums of money as interest for money advanced on the security of property.

2934. You propose that the county cess should hereafter be laid upon the landlord;

lord; how would that interfere with the existing interests?—I would propose that the landlord pay that part of the county cess which seems to me particularly to improve his interest.

2935. Suppose a tenant holds a lease for ever of an estate worth 1,500*l.* a year, and he pays out of that a head-rent of 1,200*l.* a year, having only a profit of 300*l.* a year, by throwing the county cess upon the landlord he would become chargeable for a heavy tax to which he was not hitherto liable, and which he has not contemplated in making the contract with the tenant, who is the immediate occupier of the land; how would you prevent the injustice of such a case?—A lease for ever I conceive to be a mode of alienating property, the equivalent for which grant is a certain annuity for ever.

2936. In the case which has been stated to you, would you throw any portion of the burden of the county cess upon the ultimate landlord, who receives the 1,200*l.* a year from the lessee, who is in the actual occupation of the permanent inheritance of the land; would you throw any portion of the tax upon him?—Yes; I would throw a portion of the tax upon all receivers of rent; I am aware of the case you mention: the landlord who lets his land for ever at a certain sum stands in the situation of an annuitant; it will be a proper matter for consideration, whether that interest is equal to the interest of the landlord, who could increase his rental on the increase of the value of his property.

2937. Would you contemplate the receipt of the whole cess from the occupying tenant, or only a portion of it?—Only a portion of it.

2938. By a fixed per centage upon the value of the land?—Yes, by a fixed per centage upon the value of the land.

2939. Have you formed any estimate of what per centage upon the rental the proportion of cess borne by the landlord would amount to?—In the barony in which I live, and have considerable property, I have endeavoured to form an estimate.

2940. What is it?—I conceive, if a landlord paid five per cent. upon his income, that it would be amply sufficient to keep the roads in a thorough state of repair, and also to introduce a system of skilful drainage, which might eventually be extended to the making of proper fences, which ought to act as drains, but which do not do so at present.

2941. Is not your proposal open to the same strong objections that prevail against tithes, and every other fixed per centage levied upon the improved value of land, inasmuch as it becomes a tax upon the money laid out in improvements, increasing according to the increased value of the land?—The object of the tax is to promote all purposes of improvement. The more you improve, the more you will add to the means of improvement. If I had an income of 5,000*l.* a year, I should pay 250*l.* tax upon it, and in proportion as my income increases, in such proportion am I additionally taxed; but I conceive that the result of such payment would be, that the landlords of Ireland would introduce a better system of husbandry, and eventually let a great portion of land, now a dead weight on their hands. Every farm which is left by the outgoing tenant with the fences in proper order, and the roads in proper repair, will always produce a great increase of rent.

2942. Put the case of two estates of equal value in Ireland: upon the one the landlord lays out no money of his own, but the improvement is carried on by the expenditure of the cess which is levied; in the other, the landlord expends 1,000*l.* of money of his own in improvements; the latter landlord would have an increased tax to pay in consequence of the expenditure of his own capital, while he would receive no further benefit from the expenditure than the other landlord, who pays nothing at all of his own for improvements?—The great difficulty which a landlord appears to lie under now who is improving, is this, that the landlords about him will not improve; and it is almost impossible for him to make a fair return of the capital he has expended. The few landlords who have laid out much money in Ireland for the last 20 years have come to a complete stand still for want of junction with their neighbours. I have myself built a house, at very considerable expense, and which might be called almost a public work; but the consequence of stopping now is, that I am surrounded by a pauper population, who settled upon some of the farms held by middle men for the purpose of obtaining employment upon this work.

2943. It has been suggested to the Committee that where the public in general are called upon to grant money for making roads through wild and uncultivated districts, and where a great benefit results from such an expenditure to the proprietors,

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prietors, that it would be only fair to expect that those proprietors should consent to give up to the Crown a certain portion of land in consideration of the benefit which they derive, such land to be re-sold to any of the industrious poor, who might be able to accumulate sufficient to purchase it; do you see any objection to such an enactment?—I think the same object might be obtained in a great degree without alienating the property. The proprietor, supposing he was under strict settlement, might, according to the situation in which he stood, as having a power over his property, be enabled to let leases for a certain period without giving the property up to the Crown.

2944. That would involve no sacrifice on the part of the landlord?—No, I do not conceive it would.

2945. Your proposition supposes that it would be desirable to secure the peasantry a certain portion of the benefit derived from the expenditure on public works in opening the country, by making roads and drains across it, allowing the owner of the lands to make what terms he chooses with the tenant in leasing out the improved lands, there would not be such security for the benefit arising to the peasantry as if a portion of land was placed in the power of the Crown to be sold and leased on long terms in small lots to the peasantry, as they required it?— I consider a system of leases might be struck out by the legal authorities, which would work in this way. If the proprietors were complete masters of the property, of course they would let it upon any terms that they chose; but if they were strict tenants for life or under mortgage, or liable for debts, securing the interest and principal that had been applied upon the land as a charge upon the land, they might be allowed to let such advantageous leases as would induce persons to become tenants of the property. The objection I have to the proposition made, is the fear of introducing a system that would at first appear to be so much more advantageous to the tenant than any system that now exists among landlords in Ireland, that we should have these estates taking away some of our best tenantry.

2946. Do you not think the improvement of waste lands is carried into effect most beneficially by the tenants themselves having a permanent and durable interest in such land?—I do not conceive long leases to tenants without considerable capital desirable leases, or that they are in every instance advantageous either to the tenant or the landlord; on the contrary, in Ireland it is generally believed that leases for three lives or 31 years, have been most disadvantageous to both parties.

2947. Do you not think it would be sufficient, instead of laying the burden of a public tax upon land, which you propose, if the landlord was obliged to pay the cost for all that is useful and real improvement; do you not think that much fairer than an indiscriminate taxation upon land?—The great object I wish to obtain, and the great difficulty in obtaining it is this; if you leave the improvement to be carried on partially, you do not introduce a general system in order to enable a great local improvement to go on; the sum of money to be expended should be under the direction of an able engineer, and that engineer appointed under the Board of Works. I do not conceive agriculture in Ireland is at all equal to what it might be; and I think we have the means of introducing a high state of cultivation in the country, and there would be a constant field as well as a constant fund for carrying on the suggestion of able men.

2948. Take your county for instance; in your county there is not any waste land or land that wants to be reclaimed, but it is badly cultivated and badly farmed; does it not want more the improvement which good farmers would give it, than it wants to be improved by draining and laying out new roads?—I did not contemplate the laying out and making new roads; I only conceive that the cess would amount to a sufficient sum to keep in repair the roads now laid out upon an improved system. If the engineer had a system of road-making for three years in succession instead of one year, then it would introduce the thorough art of road-making, and that is what we want now. A proper system of drainage, by being able to extend the drainage to a greater length, would be more complete than it could possibly be by individuals taking it up.

2949. Then is not the improvement principally required for the tenants, the better kinds of houses for the farmers, and it is not altogether the better system of farming, more than the want of reclamation of waste lands?—I consider we want both; the better system of houses must remain between landlord and tenant, but the making better fences might be easily done; it is all lineal work, and it could be done by measurement; the parties might be paid by the perch; it is a description of work that

that would enable you to test the value of the labour, the value of which and that of time, are little understood either by the Irish farmer or labourer. *James Naper*, Esq. 17 June 1835.

2950. You are too good a farmer not to be quite aware that a farmer must be a much better judge of what is the best place to make a fence than a civil engineer?—No, I do not think so, I think one of the greatest faults in our county is having fences too large, and that they have not been laid out on the principle of acting as drains to the fields they are in.

2951. Do you mean to say it would be highly useful or necessary that a civil engineer should lay the fences?—Not on every farm, but I conceive there are some of the immense fences which when they came to re-crop the ground, might be replaced by a much better style of fence altogether. They are quite ignorant of the better system of draining.

2952. Would not difficulties arise on your plan if the estate was in mortgage; how would you propose to get rid of the difficulty?—I propose that all receivers of rent on the property should stand in the situation of landlords, and that the person who collects the cess, his receipt should be available on the part of the tenant, and be received by the landlord as part of the rent. If the tenant pays me 100*l.* I should have 95*l.* and he would hand over the collector's receipt for the other 5*l.*, and if I owe the mortgagee 100*l.* he must receive the 100*l.*, minus the 5*l.* per cent.

2953. Would that not be very hard on the mortgagee who had not entered into such a contract?—I consider such is the state of Ireland, that unless all persons interested in land will submit to some sacrifice, that the property from which mortgagees expect their capital will, in a very short time, not be able to pay the interest of the money, much less the capital.

2954. Would it not deter persons from lending upon mortgage in Ireland?—It might do so; but I think it would be a great advantage if men were deterred in many cases. The return to cash payments has so much reduced the property of all landed proprietors, both in England and Ireland, that the loss to the mortgagee would not be at all equal to that which the landed proprietor of Great Britain bore when the return to cash payments reduced the principle and interest of their property.

2955. Your proposition is in the nature of a labour rate?—Yes; only it goes upon the landlords instead of the tenants.

2956. You consider all parties deriving any revenue from the land, ought to contribute to the relief and employment of the poor, through the medium of a labour-rate?—I would rather call it the landlords' rate; and perhaps I might add, that I am aware that without great consideration the different interests cannot be defined.

Veneris, 19° *die Junii*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *David Aher*, called in; and Examined.

2957. HAVE you any suggestion to make to the Committee connected with Public Works in Ireland?—I beg leave to lay this plan before the Committee, and which I consider, if carried into effect, would be a most useful public work for the South and West of Ireland. Mr. *David Aher*. 19 June 1835.

2958. What is this plan?—To make a rail-road from Dublin to Kilkenny, 33½ miles of which will be a main trunk towards Limerick and Galway. The Kilkenny branch may be continued to Callan Fethard and Caher, where it would join the proposed line to Valentia. The levels are very favourable, and it will appear by reference to the section, that there are no slopes of more than one in 500, and between Athy and Kilkenny 33 miles are perfectly level, and passes through the eastern outgoings of several valuable beds of coal and culm, in the great Kilkenny and Queen's County coal district. This line of railway may be considered as a main trunk of communication between the South and West of Ireland and its metropolis.

2959. You are one of the engineers for the surveying of the bogs in Ireland?—I am.

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2960. Have you, in your Report, made an estimate of the expense of reclaiming those bogs?—I have.

2960.* Have you any reason, from subsequent experience, to change your opinion as to the facility of reclaiming those bogs, and as to the expense at which it could be done?—I have had some experience in the draining and cultivation of bogs since the publication of that Report, and I think that it will not require a greater expenditure than I have stated.

Mr. *John Thomas Cramer*, called in; and Examined.

Mr. *J. T. Cramer.*

2961. WHERE do you live?—At Rathmore, in the county of Cork.

2962. What is your profession?—My profession has been, for some years, that of agent and receiver of rents, and which I receive to a considerable extent in different parts of Ireland.

2963. In what counties?—In the counties of Cork and Limerick, Kilkenny, Carlow, Queen's County, Kildare, Wicklow and Dublin.

2964. In your capacity of agent and receiver, you have had opportunities of examining and seeing what improvements might be made in the estates over which you are agent and receiver?—Yes.

2965. Is there not a great quantity of land in those counties to which you have referred, of bog and mountain land capable of improvement?—The part to which I would particularly point my evidence, lies in the west of the county of Cork, and extends into Kerry.

2966. What description of land is that?—It is high land, commonly called boggy mountain, but all capable of improvement.

2967. At what expense can you state to the Committee per statute acre?—My evidence does not go to deep turf bogs, but simply to heathy mountain land, on which there is bog. The process of improvement as respects that, is very simple, and the expense very moderate; the operation is simply by burning; that is the first indispensable step, and from that two or three crops are obtained, which brings the ground immediately into a fit state for succeeding purposes of agriculture.

2968. What is the depth of the bog?—The depth of the surface varies from about a foot to a foot and a half or two feet.

2969. Does it give red or yellow ashes?—Reddish and black ashes, and a mixture of white also.

2970. Would it not require considerable draining?—There is great facility for draining the ground I allude to, because it is all upon the side of hills.

2971. What would the expense be of draining and reclaiming the land?—The expense of draining varies so much and depends so much on the local circumstances, that I could give no general answer to that, but it is very trifling; in consequence of the facility of taking the water off from those hills, there are rivulets in all the valleys into which you can conduct these drains; the expense would be very small; I have been in the habit of allowing from 4*d.* to 2*s.* a perch, which is almost the highest that has been claimed from me for making those drains; 4*d.* for the surface drains, and for the main covered carriers 2*s.*; when the ground is such as to require deeper cuts, which it will where the fall is not so great, the perch varies from 1*s.* 8*d.* to 2*s.* 2*d.*

2972. Do you propose to gravel before you burn?—No, we have no gravel.

2973. Have you clay?—None of good quality.

2974. What is the substratum?—A cold gravelly clay.

2975. Do you put any of that upon it?—No, there is sufficient surface without bringing up that which is quite unproductive.

2976. Is not the surface entirely bog?—No, there is a strong mixture of clay or loam in the surface generally.

2977. Have you ever brought into cultivation any considerable quantity of such land?—Yes, the country I allude to now extends from the west of Newmarket in the county of Cork, to where Mr. Griffith's new lines branch out; one of the lines goes to Castle Island in the county of Kerry, and runs nearly west; the other goes to Abbeyfail north-west. These are the two main trunks, and the country that I allude to lies between those two; and I would propose that new cross roads be made where there are none at present, intersecting the intermediate country, and connecting those main roads.

2978. Have you improved a large quantity of land?—I have; but the parts that have been improved are invariably confined to these two lines of road, and close

close to the bye-roads and old roads where passable; and just in proportion to the facility of communication with the main roads we find the improvement extends.

2979. Have you seen the improvements made under Mr. Griffith?—No.

2980. Are you aware Mr. Griffith thinks it necessary to trench the land as you have described to the depth of about 18 inches, throwing up nearly six inches of that substratum?—I have seen that substratum brought up in small quantities in tillage; where the surface is so light there must be a portion occasionally turned up, which in the course of cultivation will of course add to the depth of the surface soil.

2981. Do you mean to say you have no doubt the entire of that country would be reclaimed if the roads were opened?—Certainly; but these roads in order to communicate the greatest benefit to the country, ought to extend to the limestone quarries which are in the centre of it, and are at present inaccessible except at great labour and expense.

2982. How would you propose to make those roads as to expense, and so on?—The country itself is very poor and is not capable of paying for them. The grand jury of the county of Cork have to levy large sums; the county cess varies from 30 to 40,000*l.* every half year; the necessary demands of that very extensive county would probably operate on the grand jury, and justify them in refusing as much as would be necessary for the immediate improvement of these extensive wastes, which until those roads were made by Mr. Griffith, were wholly inaccessible.

2983. What would you think of this plan, Government paying a third, the county paying a third, and the proprietors being assessed for a third?—I should be very glad of it; the late Lord Lisle, who died last November, had authorized me to make application to the grand jury of Cork, and, to meet that very case to promote the cultivation of this district, intended to have given 400*l.* this summer in making roads, and which I should have expended, provided I was joined by Lord Cork, and had a probability of getting from the county some assistance, which I had little doubt of. As to the proposition of one third to be paid by the proprietors, one third by the county, and one third by Government, I should say that the Government should give more than that.

2984. Why?—Because the country is so very poor and inaccessible.

2985. Are the landlords poor?—The landlords must be poor as to the return from this particular district to which we are referring.

2986. Should you not have regard to the great advantage the landlords would derive from the improvement?—The way we have encouraged improvement in that district hitherto is this, leases are granted for 21 years or a life, and at a very low rent, 2*s.* or 3*s.* an acre, or somewhere thereabouts, and an allowance is made of one-fourth from that rent, provided the tenant proves to the satisfaction of the agent that he has expended that fourth in improvements, such as making ditches, banks and drains; and in addition to that there is a further allowance of 6*d.* a barrel for all lime that is expended on the reclaimed and improved ground, and ample allowance for new houses and barns.

2987. Do you find that method answer?—Yes, the allowance is always claimed.

2988. Do you find the reclamation goes on?—Yes.

2989. And at a proper rate?—Yes.

2990. What class of men do those persons become?—Respectable farmers; we prohibit in every case the possibility of their becoming middle-men.

2991. How?—By strict prohibitory clauses in the lease.

2992. Is that sufficient?—We find it so; and there is another check in the lease for 21 years; a man will not in that short period find it to his interest to become a middle-man. I am speaking only of what I experience myself, and I have found that so extensively, that I am quite satisfied it has a good effect; possibly it may not operate in other counties in the same way; I have found not only here, but in all other places a lease for 21 years with that clause, is an effectual check to subletting. I cannot say I know any instance where the farmer has parted with his ground.

2993. Not even to his family?—Yes, he may divide among his family, his sons. We always make exceptions in favour of the family; that is specially made in the lease.

2994. Would you allow a man to divide it, if he had ten children, to divide it into ten different portions?—If I were to be asked would I allow it, I should say I should not approve of it.

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2995. But he may according to that lease do so, may he not?—He may, according to the liberty we give him.

2996. Do you consider the system of giving 21 years' leases at moderate rents such as you have described to be necessary to encourage the improvement of this waste land by the occupying tenantry?—I think it sufficient to encourage the cultivation with the before-mentioned allowances.

2997. And that without such encouragement it will not go on so rapidly?—With that encouragement I have just mentioned that I have been authorised to give, I find it quite sufficient, and I do not think the improvement could go on so fast without that.

2998. Would it not be better to grant leases with three lives?—Certainly not; that degenerates into sub-letting.

2999. Could you not prevent sub-letting?—That brings you into litigation, which should always be avoided.

3000. Does it not give a better holding to the tenant?—It gives a longer period to the tenant, but I do not think it gives him a better interest in the farm; if he holds in fee it is very different.

3001. Do you not think the longer the lease a tenant has, the greater the encouragement is for him to improvement?—When a man has an extended period of three lives it always dwindles into sub-letting; then he goes away, lives on the profits as long as he can; it ultimately ends in his being ejected, and the estate is thrown into difficulty and disorder; the difficulty of recovering the head-rent from the occupying tenant that he lets in, and who generally is ruined by both parties.

3002. Would you not think it desirable, supposing Government was to grant or lend money to aid the reclamation of these wastes, and that terms should be made with the owners of the waste securing to the occupying tenantry the long leases on beneficial terms, or such encouragement as you have described to be desirable?—I think a certain portion of the reserved rent should remain in the hands of the tenant, provided they proved to the satisfaction of somebody that they had expended to the amount of the rent proposed to be reserved in those permanent improvements, such as making fences and ditches and drains, which are what is required in lands of that description. Where these roads are made we have improvements in cultivation increasing very fast, comfortable cottages, and the peasantry very much improved in their habits, and from being a lawless set of people they have become amenable to the law; and I know no part of the county of Cork which is now more tranquil.

3003. Can you depend on the landlords generally in Ireland offering such favourable terms to the tenantry who might settle on their wastes, supposing that waste to be opened up by a government expenditure?—I should not like to leave it to the landlords.

3004. How would you secure such terms?—It is very difficult; I can scarcely see how such terms could be secured.

3005. Would you think it just for Government to make that a condition of the grant or loan, if the means could be made available?—I think they might, on the fairest principles, because these lands are unprofitable until roads are opened; and I would recommend them to be made at the public expense.

3006. And being so made, would it be equitable that terms beneficial to the tenants should be made?—I think so.

3007. You are agent to a number of proprietors, are you not?—Yes.

3008. Do you consider, generally speaking, the condition of the peasantry is improved?—Very much every where.

3009. State the reasons that have brought that conviction to your mind?—I think there is more attention paid to procuring resident tenants; the leases are now given for shorter periods than heretofore, and the landlords look more to the selection of solvent tenants, men of character; the exorbitant rents that have been heretofore required are not demanded now to the extent they were; all these are reasons I find operating on the subject.

3010. One of the reasons for the tenantry improving, you mention to be short leases; state why you conceive short leases materially affect the condition of the people?—I have always observed, when the shorter period is granted, that the tenant becomes more attached to the soil, and never looks to sub-letting, or to extort from the industry of the people under him, what he ought to collect by his own industry from the land.

3011. Do you observe whether the clothing of the people is improving?—Very much.

3012. Do you find the use of wheaten bread extending?—I think it is not, but I think

I think their food is improving; I think they are better fed; they have more potatoes to eat, and consume more of their bacon and milk at home.

3013. Do you think the tenure of 21 years the most advantageous, under all circumstances?—Yes.

3014. Would the counties object to their contribution of one-third for making roads?—If these roads are made, and approved of in the usual way by the county surveyor, and that they pass the usual scrutiny of the magistrates and rate-payers at session, I have no doubt whatever the grand juries, as far as my experience goes of them in the county of Cork, would be inclined to grant the sums; that is, if they were not overburthened with other compulsory matters; nearly half of the sum collected by the grand jury orders is compulsory.

3015. Would the landlords, do you think, object to the contribution?—Small landlords would not like to give any thing; extensive landed proprietors, I think, would not hesitate to give a proportion, and a fair proportion.

3016. You have not stated to the Committee the expense necessary to reclaim the land which you state has been brought into cultivation?—The mere expense, independent of drains, (and that, as I mentioned before, is so uncertain, that I cannot be particular, except as to the rate,) the bare expense of bringing that land into immedate cultivation is about 20*s.* to 25*s.* an acre, and the expense of draining about 2*l.* an acre on an average.

3017. How does it happen that the landlords, then, do not themselves, to a greater extent, improve those lands?—The enormous expense of making roads has hitherto prevented it.

3018. Are there no other difficulties in the way?—I know of no other.

3019. Are there none in the way of settlements, and tenancies for life?—Where the return is so great as to make the thing profitable, I do not think that would operate as a bar.

3020. Nor in the way of incumbrances on the property?—I should think, where those incumbrances are not very heavy, they would not operate on it. I would suggest to the Committee (from the experience I have of the benefit) that grants might be made for the establishment of district farming societies; for the encouragement of the different objects of agriculture; the improvement of cattle, and introduction of better implements of husbandry; change of crops, and all that kind of thing. There was a good many years ago, a society of that description in the county Cork, which was established in a wild part of the county, lying between two arms of the sea, between the harbours of Cork and Kinsale; there the establishment of a farming society had the most beneficial results; small premiums were given for the introduction of particular crops, and improved habits of cleanliness and industry, and rewards for extended services and good character. This society dropped about ten years ago, from the death of our secretary, who was a very active man, and the having nobody to supply his place. At that time our ploughing matches were of that description, that we had from 15 to 20 or 25 ploughs brought into the field for competition. The improvement had become so great, that probably in the whole of that number there were not above two or three that you could say were badly managed. After an interval of ten or eleven years, this society has been again brought together last year, and although in that short period one would not suppose much had been lost, we found great difficulty in finding one good ploughman at our last meeting, which satisfied us all of the utility of institutions of that kind. Now, I think the plan I would propose would be, that the Government should give for that especial purpose 50,000*l.* to be distributed in Ireland; that would give very little more than a thousand to each county, which would be very small, and the overplus might be given to the larger counties.

3021. Would that be sufficient to establish such societies?—I think it would, and that it should be given only where subscriptions were collected in the particular district.

3022. To what extent?—You might give as much as the subscription would amount to.

3023. Would 2,000*l.* be sufficient?—I should think it would in the large counties, and 1,000*l.* in the small; these societies ceased altogether, when the small Government grant was withdrawn, which was very injurious in their respective districts.

3024. Was it an annual grant?—The Cork Institution had an annual grant of 700*l.* for the special purpose of promoting agriculture; and even that small sum did a great deal of good. Unfortunately, in the annual grant to the Cork Institu-

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tion of 2,700 *l.* they took off the 700 *l.*, which I thought was the most valuable and beneficial part to the public; the remaining 2,000 *l.* was continued for some years, without much apparent benefit to the country.

3025. Have you any other suggestions to make?—I think in the establishment of the county engineers, that the number is not sufficiently great for the useful purposes of the country; in the county Cork we have but two; it is quite impossible that any two men could do the duty as it ought to be done, and consequently at the last grand jury we had several roads before us that we were obliged to reject altogether, or else to pass without sufficient and satisfactory information, in consequence of the engineers finding it impossible to go through the county in the time limited.

3026. Are your engineers experienced men?—They are experienced and active men. There is another point which I should suggest; all along the sea coast on the south-west of Ireland there are promontories that extend a great way out; these are more or less neglected in the way of roads and communications, and I think that some of the public money might be given advantageously to open lines of communication between those promontories, by crossing the arms of the sea or the rivers that are at the upper ends of them. Generally a road runs through the centre, from the extreme point of these promontories, always a bad one, and generally the only one they have on those promontories, (some of which are extensive) to the market town; whereas a bridge over would connect immediately with it, and be highly beneficial to the country at large. The district I more particularly allude to is the town of Kinsale, which at two sides is in the way I have mentioned; an arm of the sea on one, and the Bandon River on the other; the communication from that district, which lies on the other side of that river, is seven or eight miles up; and by erecting a bridge from the town of Kinsale directly across, it would bring that district, which is extensive and all agricultural, and very populous, immediately into the town.

3027. Why is not that done by the county?—The county, as I said before, cannot allocate larger sums than they are doing now. When you consider there is from 70 to 80,000 *l.* collected in the county, independent of the city of Cork, and from its very great extent, from the expense of new roads opening into these wild districts, most of which are kept in repair by the county and other necessary charges; the county cannot give the large sums necessary to expedite or bring into improvement all the different parts of the county.

3028. Would it not be advantageous to the landed proprietors to do these things?—The landed proprietors happen unfortunately not to be very rich there.

3029. Are the entire of these expenses levied on the occupiers; the county cess?—Entirely.

3030. No part contributed by the landlord directly?—None; it is always paid by the occupying tenant.

3031. Has there not been a great increase of this expenditure of late years?—I do not think it is so great as it was; it is considerably under what it was heretofore, twelve or fourteen years ago, I am sure it is.

3032. Why should you expect Government would contribute, as you have now mentioned?—Merely from the extent of the country that would be benefited by it, the general improvement that would result to the town of Kinsale, having a population of 9,000 souls debarred by natural impediments from nearly all communication with the neighbouring districts, from opening a short and easy road from the important naval and military station of Cove of Cork, through Kinsale to Clonakilty and the west of the county, expediting assistance, in case of shipwreck, for protection of life and property, and many other equally important reasons.

3033. It is not a poor country, is it?—Yes, it is a poor country; a high hilly country. At the last assizes, at Cork, we granted seven hundred pounds for the purpose of opening a line of communication immediately opposite the town of Kinsale, into that district which lies on the other side of the river. Now, in order to render that perfect, we want a bridge; and the country is too poor to admit of the sum being levied, which would be necessary for that purpose, it being a deep river, and in some cases a rapid river.

3034. Do you not think it fair the landlords should contribute part of the expense of making these roads, which cause a permanent increase in value?—I think the old system of requiring the tenant to pay the charges, which is the customary one in Ireland, was wrong.

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3035. With regard to county cess?—He is obliged to pay the county cess by his lease; that falls on the tenant universally. In granting new leases, of course a new contract may be made; but while that contract lasts, I think the tenant should be obliged to fulfil his part of it.

3036. Do you not think it fair that the landlord should pay part of the expense?—I look upon it in settling his rate of rent, that there is an allowance made on that score, as well as other charges.

3037. There may be ample allowance made for roads already in existence, and it would probably be fair the tenant should pay for the repairs of the road he is to benefit by; the question put is, when there is a new road made, and the value of the estate permanently increased, do you not think the landlord should bear that expenditure?—A portion of it, of course; if the road is of any use, the tenant must derive benefit as well as the landlord; I think it would be easy to settle the proportions.

Mr. *Michael Malley*, called in; and Examined.

Mr. *M. Malley.*

3038. YOU are, I believe, a director of the Dublin Royal Canal Company?—I am.

3039. Have you resided some time in Dublin?—All my life.

3040. Have you any knowledge of the inland navigation of Ireland, comprehending the canal and the River Shannon?—I have.

3041. Have you travelled over the line of country in which the Royal Canal runs?—Yes, and the Shannon; I have gone round from Kerry-head to Lough Allen. I consider the improvement of the Shannon would be a matter of great utility to Ireland, and of the greatest moment.

3042. At whose expense ought the River Shannon to be improved?—I think it ought to be at the public expense, and the reason is, because it would go to such an extent, and the management of it ought to be confided to the Board of Works, as appointed by Government.

3043. Do you think it desirable to get rid of the present local bodies, the Royal Canal, the Limerick Navigation, &c.?—I think so; I have always remarked when they are subdivided into companies, that it leads to a great deal of jobbing; I consider that this system has been very injurious to Ireland; I know it.

3044. Do you consider the extension of the Royal Canal would be a benefit to Dublin?—I think the Royal Canal is extended as far as it ought to be at present; it goes to Tarmonbarry, which was the original intention, and I think it ought not to go further, because when it goes into the Shannon, then it becomes a national undertaking.

3045. How far would you carry that canal from the Shannon?—For the present, I would carry the new line of the canal from the Shannon to Elphin; I am afraid it would cost a great deal of money to go further.

3046. If you had money, how far would you go?—I would go to Lough Gar, because it brings it near to the county of Mayo, and which would bring a great deal of corn down the country.

3047. What is the distance from the Shannon to Lough Gar?—I believe about 17 or 18 miles; I went from curiosity through the country, and I am convinced that nothing would tend so much to facilitate the improvement.

3048. If the Royal Canal was constructed again, might it not be done at a much less expense?—Certainly, some hundreds of thousands of pounds; they took the high ground when they might have selected a line of low ground; they went through two very extensive quarries; one quarry, I think, cost them nearly 100,000*l.*, and there was another near Mullingar; they ought to have kept the canal more to the north, and led it near Trim; but it is of no use now to mention it, as the injury has been done.

3049. Would the Royal Canal make this extension, if they were assisted by Government from the Shannon to Lough Gar?—I had much rather the Government would take the charge upon themselves, though I am a director; I would say that it invariably leads to private jobbing.

3050. Do you consider if the system was introduced of Government contributing one-third, and the proprietors of the stock or the proprietors of the land through which it runs, contributing another third, and putting one-third on for tolls, that a system of that kind to extend internal navigation would be highly advantageous?—I think it would be highly advantageous; I think it would tend to restore confidence among the lower orders of the people, for their wants would be attended to,

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and it would be highly beneficial in every point of view, both to the landlord and the tenant.

3051. Would you in that case recommend the Royal Canal to make the extension you talk of?—I would not recommend the Royal Canal to have any thing to say to it.

3052. The original stock, if I understand it, of the Royal Canal, is at this moment cancelled?—Yes.

3053. And the grant from Government was expended, and the capital consists of a further sum of 750,000*l.* that was raised?—The sum that the old company had raised by way of loan; the loan was converted into stock, and the stock proprietors have had their stock cancelled.

3054. How much was that loan?—About 780,000*l.*

3055. That, I believe, at present pays but a dividend of two per cent.?—Not so much; but 1 $\frac{3}{4}$ the last half-year and 1 $\frac{1}{2}$ the half-year before; it did for several years pay two per cent.

3056. The profits of the Royal Canal are, according to the reports I have seen, about 120*l.* a mile?—I cannot exactly say what it is.

3057. How do you account that the profits of the Grand Canal are more than double per mile the profits of the Royal Canal?—Because the traffic is more extensive, and Mr. Williams, who is in this room, has increased the profits of that canal very considerably.

3058. If the navigation of the Shannon was opened, do you not think that the traffic of the Royal Canal would be very considerably increased?—Yes.

3059. Do you not think that the produce of the counties of Roscommon and Mayo, that are now brought to sea by land carriage of upwards of 40 miles, would get to the Liverpool and Manchester market by the Royal Canal?—Certainly, and agriculture would be increased very much in the counties of Leitrim, Roscommon and Mayo.

3060. Can you state the amount of the tolls paid by the Dublin Steam Packet Company to the Grand Canal?—I understand they are 9,000*l.* a year.

3061. Can you state the amount paid to the Royal Canal?—I cannot.

3062. Have you any further suggestions to make to the Committee?—The state of the road from Longford to Roscommon is in a very wretched state, and has been so for years. It would be desirable I think that the Board of Works should have the power where public roads have been in a state of dilapidation for a long time of improving them, and charging the expense to the counties through which they pass.

Mr. *William Bald*, called in; and Examined.

Mr. *William Bald.*

3063. WHAT is the reason for your preferring the harbour of Blacksod to the harbour of Galway, for the railroad you mentioned on your last examination?—The only reason, that it was more seaward than the bay of Galway, and the country all the way from Dublin to Clew Bay, and on to the harbours of Blacksod and Broadhaven, level and suitable to the construction of a railroad; but the line to Galway is equally level, and very much shorter than the one either to Clew Bay or the one to the harbours of Blacksod and Broadhaven. This main line of railway in this direction would cross the Shannon river, which requires so much to be improved, and would lay open the whole of the bog land lying in the middle region of Ireland, and which consists of about nearly three millions of acres; according to "Dr. Beaufort, the most extensive levels are about the middle of Ireland, where a vast plain stretches quite across, from sea to sea, from the coast of Dublin to the Bay of Galway, including in its extent the Bog of Allen." I further think where such a great work, assuming a national character, is likely at some period to be carried into execution through Ireland, from sea to sea, that a very careful examination of the country should be made in various directions, and also of the harbours on the western coast; for although some of these harbours may be objectionable, on account of their great extent and capacity, yet it ought to be considered how very easy it may be to construct works within, and render them perfectly safe and eligible to all the purposes which may be required to the security and safety of shipping. The more the capabilities of the country are investigated into for this project, and also the important public works which may be connected with it, such as supplying Dublin with cheap turf-fuel in abundance; the drainage of the Bogs of Allen; also the circumstance of cutting Ireland across in the very centre, and in the shortest and most level direction, where a railroad could be made at a very reasonable expense, are

matters

matters which require to be considered, and the more this is done the more likelihood there will be of selecting the best line for all the purposes of general public utility.

3064. Would not steam packets, established in the Bay of Galway, always enable vessels wishing to leave that port to go into the Atlantic?—The only difficulty that steam packets would have to encounter in that case, would be the prevailing westerly and southerly gales, in getting into the Atlantic free of danger. In the other case the harbours of Broadhaven and Blacksod being, as I before mentioned, more seaward, the steamers would get out at once into the open sea.

3065. Are you acquainted with any districts in Ireland of a mountainous character, which would be beneficially reclaimed and opened by roads?—Yes; I know many districts in Ireland to which very great benefit would arise from opening them by roads. For example, the mountainous districts in the county of Antrim, opposite Scotland, a portion of Sligo and the very extensive districts of Erris and Murrisk, in Mayo; also those in Connemara in the county of Galway. The mountainous districts, particularly of the West and South of Ireland, in the counties of Kerry and Cork, require roads very much; also the mountainous districts of Donegal. All these tracts of country resemble the Highlands of Scotland, and require much aid and assistance in making roads through them, because the population are extremely poor indeed. I am not aware of any description of works which tend so much to the improvement of Ireland as roads. All those districts now mentioned are capable of being improved to a very great extent, and nothing promotes this more than works of this kind.

3066. At whose expense would you suggest that these roads should be made?—I should think the system adopted in opening the Highland districts of Scotland should, in all cases, be followed, namely, that Government should pay one-half of the estimated expense, and the counties through which the roads would run, the other half.

3067. Would you assess the county or barony or district in which the roads are situated?—One half the expense of making the roads to be charged on the barony, and the other half of the expense of constructing the bridges and the masonry to the county, the Government contributing half of the whole expense.

3068. At what expense might these mountainous districts be reclaimed?—I have already mentioned that I have estimated the expense of draining 200,000 acres of bog at about 1 *l.* British per English acre. I should think, however, in the mountainous districts of Ireland where the bog is not deep they might be drained at less than one-half of this expense.

3069. Are you acquainted with the county of Mayo?—Yes.

3070. Can you state where small harbours would be useful for fishing purposes?—Yes.

3071. Be so good as to state them?—At Bunatrahur; Belderig; Port Thurlin; Fort-a-Cloy; Rin Roe; Inver; Portnafrankagh; Elly Harbour; Inishkea; Tulloghan; Doogort; Keem; Gubellaananbeg; Dooega; Trabodarig; Doobeg; Portachuila; Breakwater at Clare Island; Carrowmore; Runa; Inishturk; Inishtegil; Quay in Bofin; and Pier at the east end, and a Pier in Shark or landing-place made, and a Pier at Dooninver, near the Bull's Mouth. I drew out a design and plan for the Marquis of Sligo, the present governor of Jamaica, by which the harbour of Westport could be deepened nearly four feet, and which would be an extremely useful improvement to the whole trade of that country; Westport Harbour at present admits ships drawing 12 feet of water at spring-tides. The outward harbour of Westport is at Doreinch within the bar, and is about five miles seaward in Clew Bay. The bar which forms this harbour is a natural breakwater of one mile and a half in length, on which is situated the Isles of Doreinch More and Doreinch Beg; this natural breakwater slopes seaward in some places one in thirty; but inside facing the harbour its maximum slope is one to one: it is formed of boulders. This breakwater is perhaps one of the most remarkable natural hydraulic works that perhaps exists on the coast of Europe, and is well worthy of the attentive study of professional men who may be engaged in the construction of harbour works; its mass may be judged of from its sectional area according to its depth, being greater than that of the breakwater of Plymouth, or even that of Cherbourg in France. To form such a work would have cost more than two millions of money; it has a depth at its entrance of five and six fathoms, and although not near so deep within, yet, as the bottom is all mud, it could be deepened to any depth required. Immediately opposite to the harbour of Doreinch lies the harbour of Inish-Gort, within which there is at low

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water from four to six fathoms. This beautiful basin is more than a mile long and more than half a mile broad; the entrance to it is through the Channel between the Isles of Inish-Gort and Cullinbeg, which at low water has a depth of only 15 feet, but at high water springs 27 feet; this entrance might be deepened, if thought necessary, because the bottom consists of shingle, easily lifted with the steam dredge. Inwards lies the harbour of Inish Lyre, and northwards, bordering the Newport Channel, is situated the harbour of Inish Goula, safe and secure to all classes of ships, and having five fathoms of depth at low water. Here are a series of excellent harbours that would have cost millions to form, capable of holding the largest description of ships. I surveyed, navigated, sounded and made charts of these harbours along with many others on that coast more than 15 years ago. These harbours and Clew Bay claim attention in any communication being made with America, because a straight line drawn on an arc of the sphere from Liverpool to St. John's, in America, passes through them.

It may be interesting as well as useful to mention that all the limestone boulders on the shores of Clew Bay, and also all those on the sea coast round Ireland, are in a state of decay from the ravages of the Pholas; therefore breakwaters or harbours in deep water should not be constructed, if possible, with limestone, or any calcareous rock liable to be destroyed by the Pholas. Granite is exempt from the ravages of this animal. In the Frith of Forth, in Scotland, beds of rock 15 feet thick have been decomposed and destroyed by the Pholas.

3072. Are there considerable fishing banks on the coast of Ireland?—There are.

3073. Be so good as to state them?—There is a very large bank about 60 miles west from Achil Head, where boats from all parts of the west coast used to go searching for the sun-fish or basking shark. This great bank runs parallel to the coast of Ireland. It is, however, broken in several places. It runs southward by Shark Island, and towards the south coast of Ireland, and upon this bank are great quantities of cod and ling. It has been said that the Dutch in former times fished upon this bank with considerable success. Articles of Dutch manufacture have been frequently found in the peninsula, called the Mullet, near the harbours of Blacksod and Broadhaven, in Mayo. In 1603, the Dutch alone sold 1,759,000*l.* worth of fish. In 1615 they sent out 2,000 busses, and employed 37,000 men. In 1618, they sent out 3,000 busses with 50,000 men, and 9,000 vessels to transport and sell the fish, which by sea and land employed 150,000 men. I have seen charts of the western parts of Scotland, the Western Isles or Hebrides, and the western coast of Ireland, in Cowan the map-seller's shop at Amsterdam, near the Stadt House, on which charts were represented busses fishing on these shores, and describing the kinds of fish found. In 1680, when Amsterdam was at its zenith in commerce, the Dutch employed alone in the whale fishery 260 ships and 14,000 sailors; that branch of fishing has now fallen almost entirely into the hands of the British.

3074. Are the fishermen of the western coast enabled to reach the bank now?—No, they have not vessels fit to stand the sea on the bank, except in fine weather, neither have they fishing tackle, nor skill to carry on this deep-sea fishery to any profitable extent.

3075. Who fishes upon the bank?—Very rarely any one fishes upon it, because the boats upon the western coast of Ireland are too small, nor have the people fishing-lines suitable to carry on a deep-sea fishery with any success. The only vessels that I have seen upon that coast were in 1822, when there were about 20 sail, principally from the Skerries and Rush, situated on the eastern coast of Ireland; and those vessels, to the best of my recollection, carried about 35 tons of fish, and were manned by five or six seamen. At that period they were fishing upon the ground outside the Black Rock, and returned into the harbour (of Blacksod) every Saturday night. The fish were then landed, cleaned and salted, and packed in squares on the beach, and this was in the months of May and June; one man always remained ashore to cure and take charge of the fish; and when they had got their cargoes completed, which consisted of cod and ling, they informed me that they sold them in the market of Liverpool. These men fish round Ireland, and also upon the banks which lie off the coast of Bofin, which is situated on the coast of Galway (for there are more banks than one), but which island belongs to the county of Mayo, and in which is a tolerably good harbour. The best fishing ground for cod and ling is said to be between the coast of Ireland and Barra Head, the southern promontory of the Long Island on the west of Scotland; but there can be no question that during the summer months, with good vessels

vessels and proper fishing tackle, the deep-sea fishery on the west coast of Ireland would become a source of national wealth and strength. Franklin has said, "He that puts seed into the ground reaps forty-fold, but he that puts a line into the sea and pulls out a fish, pulls out a piece of silver." Fisheries are nurseries for seamen, and it ought to be recollected that at this moment the French have more than 25,000 men fishing on the coasts of Newfoundland and Labrador. By the last treaty of peace, Britain assigned to them the islands of Miquelon and St. Pierre, which has given them stations on the best fishing grounds of the British Colonies, and the United States of America have now more than 30,000 men fishing at Newfoundland. England ought, therefore, to extend this branch of national industry and wealth, by every means and by every encouragement in her power, because "*Le tridant du Neptune est le sceptre du monde.*"

3076. Are there any particular situations upon the Mayo and Galway coast which you would recommend for fishery stations or for small piers?—I have answered that already for Mayo; but beg to mention the following for the coast of Galway: in Connemara, at Killeen on the west side of Costelo Bay, at Ternee, west side of Great Man's Bay, at Rustreen in Kilkeran Bay, at Ard Castle in Ard Bay; to clear the pass of Stradle; this would only cost about 40*l.*, and would then be fitted for ships of 200 tons to pass through, and do away with the necessity of going round Macdara Island, which is attended with much difficulty and delay; to complete the north pier at Roundstone, one at Bunowen Bay, one at Ballinakill; to finish the quay of Clifden; one at Tully, near the entrance of the Killery Harbour. One of the most important things that could be done to benefit the people of this coast would be the clearing the pass of Ballydangan, at the head of Great Man's Bay; much life and property is lost there annually; and to widen the channel to the new pier at Killany in the island of Arran.

3077. Is there not a great want of asylum piers on the western coast of Ireland?—Extremely so for fishing purposes.

3078. And also for large vessels to run into for safety?—Yes, in many places.

3079. Where do you think it would be most advisable to build those harbours?—I have always thought that rather large harbours at Inishturk Island, also at Clare Island, would be most useful and beneficial; and at Inishkea Island, off Blacksod, would be an excellent place for an asylum harbour. I am not just now prepared to say, but that a most excellent seaward harbour might be constructed at the Iniskea Isles, in four and six fathoms water, capable of holding the largest class of ships, and might indeed perhaps become the most seaward and nearest harbour to St. John's in America, if a communication should be thought of in that line. An asylum harbour is wanting on the coast of the county of Clare.

3080. Is not the west coast of Ireland very extensive?—Yes; taking the sea line from Cork to Londonderry. The western coast of Ireland contains a greater extent of shore than the whole empire of France, being about 5,000 miles. To illustrate this I shall just state one fact; the distance between Westport and Newport in Mayo is only about 5¾ miles in a chord line, and the configuration of coast upon that chord line amounts to 55 English miles.

3081. In the whole line of 5,000 miles of coast, are there any asylum harbours?—To my knowledge there is no artificial asylum harbour of any magnitude, although there are very many excellent natural harbours.

3082. Do not the insurers in England suffer considerable loss for want of such asylum harbours?—I should imagine that the rate of insurance would be reduced if more security were given to the ships which trade and pass along the coast; as for example, between Belfast and Londonderry there is no harbour, with the exception of the very small harbour of Port Rush, in a distance of nearly ninety miles; and along which the greatest portion of the floating wealth of the river Clyde in Scotland, and a considerable portion of the floating wealth of Liverpool, and of the British Colonies in America, pass along that part of the coast of Ireland; and it would therefore be extremely desirable that an asylum harbour should be erected somewhere in the vicinity of Cushendun, between Larne and Port Rush. Larne harbour is a very good natural harbour, when once in, but cannot be approached in the night time; and even the harbour of Port Rush requires additional work and improvement. The asylum harbour proposed in the neighbourhood of Cushendun, on the north coast of Ireland, would require to be of considerable magnitude, placed seaward in deep water, and fit to receive ships of the largest class at all times of tide; it should rather be of the character of a breakwater, affording every facility of entering and departing at all times of tide and with every wind; this asylum

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harbour would be of great utility to the shipping interests of the Clyde, Liverpool and the States of North America, trading with Britain, &c. &c. There is another asylum harbour much wanting upon the coast of Ireland; I mean on the east coast at the Skerries. There is a letter which I have received from Mr. John Young, the resident engineer of the harbour works of Drogheda, which he sent to me in April last, in which he states, "On the 6th instant, it being the dead of neap-tides, the wind came round to the westward, and a large fleet of vessels drawing as much as 10 feet 6 inches of water sailed from the quay, and cleared out of the river the same tide; such a sight was never before witnessed in this river. The harbour is also much improved; vessels may now be seen discharging and taking in cargoes close up to the bridge of Drogheda." And in a letter dated the 10th of January 1835, Mr. Young, the resident engineer of Drogheda harbour, says, "I have been credibly informed that four vessels, one of them a regular trader to this port, was driven ashore at the Skerries, on the night of the 31st December last. I mentioned this to Messrs. Smith and Smyth, and they requested me to state this to you as a striking proof of the necessity of having an asylum harbour at the Skerries and a light-house on the rock of the Bill." To beacon with round towers the dangerous reefs and sunken rocks on parts of the coasts of Ireland, would tend much to the safety of the navigator and the trading vessels of Great Britain and Ireland.

3083. Do you think timber for ship-building for naval purposes could be grown in the valleys and on the lands which surround the harbours of the western and southern coast of Ireland?—I think there are considerable tracts, well sheltered in valleys, lying adjacent to the harbours on the southern and western coast of Ireland, which perhaps might be beneficially planted with oaks, larch and Scotch firs, and which might very possibly become fit for the purposes of ship-building. The climate of the south-west of Ireland is remarkably mild, and vegetation is hardly ever arrested by frosts, similar to those which happen in England and France. There is a humidity and a mildness in the climate peculiarly favourable to the growth of all kinds of timber in those southern and western districts of Ireland; and the contiguity of the harbours on that coast would afford every facility to its transport to any part of the empire it might be required. I have been informed that between the years 1815 and 1826, 40,000 acres have been planted in England with oaks and Scotch firs, the firs to shelter the oaks.

3084. Have you examined any part of the River Shannon?—Yes, I have.

3085. Can you suggest any improvement?—I was lately boring the bed of the Shannon at Portumna, by order of the Commissioners of Public Works in Ireland, for the purpose of erecting a bridge over that river, and it appeared to me it would be extremely desirable to improve that magnificent river navigation generally, and that it should be done, I think, entirely by Government, so as to make it perfectly navigable throughout the whole of its extent. There are considerable portions of the lands adjacent to the Shannon river which are subject to flood in winter, and which I shall call the water or winter basin of that river, the extent of which I should think it would be most desirable to know; also the flooded basins of the Suck, the Brusna, the Inny, &c. &c.; a correct and distinct survey of each of them, showing the area, value and nature of the ground covered by water in winter in each of those respective flooded basins, accompanied by tranverse sections, taken at every mile in length, exhibiting the breadth or width of the flooded country, and the depth of the water in winter, and the depth of the marl beds by boring; also the velocity of each river in every half mile of its length, in winter and in summer, would be documents of very great interest and value, in order to arrive at a correct conclusion what improvements should be contemplated and decided on regarding the flooded lands. There has been a constant cry to lower the waters of the Shannon to the summer level, but if that was done, what would be the extent of the country improved by doing so, and the expense? What is the present value and the extent of the flooded land in the vale of the Shannon, of the Suck, Brusna, Inny, &c.? What would be the probable future value of the same land, if the winter waters of the Shannon, &c. were reduced to their summer level, and the lands no longer subject to annual inundations? Would the meadows and bottoms and other lands along the vale of the Shannon and its auxiliary branches be more fertile and productive, by not being subject to these annual floodings or natural inundations? Does a command of water give to man a power to produce fertility, &c. &c.; and if it does, would a higher level of the Shannon during winter, *i. e.* a more extensive natural irrigation, under proper and full command of its waters, be more beneficial in producing

producing fertility or otherwise, than a reduction of its waters to a lower level than the present one? are questions which I should imagine require the aid of exact science, calm and deliberate inquiry, and much deep investigation.

3086. Would it not be fair that a portion of the expense of this should be charged upon those lands which would be so much benefited by the reduction of the Shannon to its summer level?—Unquestionably, if the lands be made more valuable.

3087. What is the velocity of the Shannon River?—The velocity of the Shannon at Portumna Bridge, taken in the centre on a section six feet deep, was as follows:—One foot in 2.39 seconds, centre of river under Wooden Bridge, Munster side; one foot in 2.75 seconds, centre of river under Wooden Bridge, Connaught side; one foot in 1.75 seconds in centre of open river above Hays Island; one foot in 1.64 seconds in centre of open river below Hays Island. Sectional area of the River Shannon above Hays Island, 9,384 feet, summer level. Sectional area of the Shannon below Hays Island, 9,036 feet, summer level. These observations were taken on the 26th of May, 27th of May, and 28th May, 1835. Dr. Gregory states, that the "Areas of the Transverse Sections, in the River Thames, at London Bridge: At an extraordinary high water or level of two feet above the average spring-tide high-water mark, at the Hermitage entrance to the London Docks, as settled by the Corporation of the Trinity House, August 1800, 8,130 feet; at the Trinity high-water mark or Datum, 7,360." The catchment basin of the Shannon above Portumna Bridge contains an area of about 2,600 square miles, and the area of the catchment basin of the Shannon about Killaloe may, perhaps, be called 3,500 square miles; this is taken approximatively from Arrowsmith's Map of Ireland. If 18 inches be taken as something more than the third part of the annual quantity of water which falls within this basin in rain, snow and dew, and that this depth of 18 inches all over the basin passes annually to the sea through the Shannon, immediately below Lough Derg, and the other two parts nearly go off by evaporation, then we shall have with a fall of 90 feet $5280 \times 5280 \times 1\frac{1}{2} = 41817600 \times 3500 = 146361600000$, $\frac{146361600000}{525600} = 278465$ cubic feet in a minute; $278465 \times 62\frac{1}{2} \times 90 = 1566365580$, momentum $\frac{1566365580}{44000} = 35599$ horse power of the Shannon. But if Lough Derg was under sluice and dam, and working 12 hours per day, it would be equivalent to 1,424 steam engines, each fifty horse power. It would be most useful, for many practical purposes, that the survey of Ireland should specify distinctly the area of each river basin. This has been done in many of the late continental surveys, and if the levels were given we should then be in possession of the elements to measure the extent of the water power possessed by Ireland.

3088. Can you suggest any improvements to be made respecting the navigation of the river Shannon?—I should think the river Shannon should be made perfectly navigable from Limerick to Lough Allen, but I am not sufficiently acquainted with all the minute details of the river to specify the particulars; but in descending the Shannon the other day from Shannon Harbour to Portumna and back, I passed through part of an extremely intricate and crooked navigation. I have also been up at Tarmon Barry, down at Killaloe, Limerick, and at Kilrush, and I am of opinion that the Shannon River navigation requires to be improved throughout the whole of its extent, and is in fact a national object of very great interest to Ireland as well as to England.

3089. At whose expense ought such improvements to be made, in your opinion?—My opinion is, that the Government of the country should be at the entire expense for the improvements of the Shannon, being an immense river, passing through a great portion of Ireland, indeed through its very centre, and giving a facility to the manufactures of Great Britain to enter into that country, and also giving facilities to the transport of the agricultural produce out. It is really a great national work, and on that account ought to be done at the national expense.

3090. Do you not think it reasonable that the landed proprietors on both sides of the river Shannon should contribute a portion of the expense?—I consider the improvement of the navigation as a separate and distinct operation, from that which is to be the improvement of the land, and I would keep them separate; and where the lands of proprietors would receive improvement and benefit they ought to pay a proportion of the expense of effecting the improvement.

3091. What do you mean by the proprietors receiving benefit?—If by any arranged plan the property of a proprietor would be improved either by the irriga-

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tion or drainage of his land, and he would get or obtain an increase of rent by his land being made more valuable, I consider he ought in that case, or the land, to bear a proportion of the expense of effecting that improvement.

3092. Do you consider there would be any difficulty in ascertaining the sum properly chargeable in respect of such improvement upon the landed proprietor?—I should think not.

3093. Then you would not make it an equal tax on all the lands adjoining the Shannon?—In proportion to the improvement effected, so should the land bear its proportion of the expense.

3094. Are you acquainted with the tributaries that fall into the river Shannon?—Yes; I have seen the Suck in the summer, and also in the winter when covered with water, and also the Brusna and the Inny rivers.

3095. Are those rivers capable of being rendered navigable to any and what extent?—I apprehend those rivers, particularly the Suck, can be made navigable for many miles into the interior of the country, as it is extremely level.

3096. Are you not aware that there is a very great tract of land on the side of the Suck, which is entirely rendered useless by the overflow of the water?—There is a considerable portion of the land to my knowledge on both banks of the Suck, subject to annual inundations, which frequently injure and destroy the crops of hay, &c.

3097. Would not such land be greatly benefited by improving the navigation of the river?—There can be no question but there might be a plan combining the improvement of the land and also the navigation. No country can present so noble a field to display the talent, resources and ingenuity of a hydraulic engineer; indeed most beneficial and splendid improvements could be effected along the Shannon, the Suck, Brusna, Inny, &c. &c. The command of water that offers, and the extent of country capable of improvement to a high extent, are such, that nothing like it can be found within the British territory.

3098. At whose expense would you propose that the improvement of the navigation of the tributary rivers should be made?—I am decidedly of opinion that it should be at the expense of Government.

3099. Are there not great tracts of land both on the River Suck and the neighbouring rivers that might be capable of being reclaimed?—Thousands of acres of land capable of improvement.

3100. Are you acquainted with an Act passed in 1831, for improvement in the embankment and deepening of the rivers; Mr. O'Ferrall's Act?—I have seen it, and I think I have a copy of it, but I am not particularly acquainted with Mr. O'Ferrall's Act; at least I do not recollect the particulars of it; I have heard of no extensive improvements being made under it.

3101. Are you of opinion that similar powers might be beneficially conferred on the Board of Works?—I cannot take upon myself to say.

3102. Do you know of any tract of land on the coast of Ireland that might be taken in from the sea?—Yes, I know several tracts.

3103. Can you state them?—In Belfast Bay, in the bay of Larne, coast of Londonderry, on the coast of Mayo, and even a portion of the bay of Dublin, coast of Galway, Clare, Limerick, &c. &c.

3104. Can you state in particular any of those portions?—I cannot at this present moment state the exact extent of any particular part, but I have frequently seen them in the course of my professional pursuits, and wondered they were not embanked in. Indeed, I never pass them without thinking of Holland, because in my opinion the Dutch would not be in possession of such tracts of land six months without embanking large portions of them in.

3105. Would it not be attended with considerable expense?—There is no question but it would in some cases; but nevertheless it would be extremely remunerative.

3106. But the expense is not so great as to prevent a very beneficial return?—No doubt, generally, a very beneficial return. It would be a valuable inquiry, to examine into the extent and practicability of embanking and reclaiming the marine lands which are to be found on the coast of Ireland; those tracts of land subject to be covered by the tide at high water, but dry at low water, are in many instances situated in very sheltered places, and consist frequently of the richest calcareous depositions, because they have been time immemorial the abode of innumerable generations of marine animals, whose exuviæ now form such valuable beds of matter so well suited to agricultural purposes. I should think these lands round Ireland cannot be less in extent than 200,000 acres; but this I merely say in the absence of exact data.

data. I have heard it mentioned that the people of Holland at one time proposed to embank in the greater part of Lough Foyle in the county of Londonderry, if they would be permitted to erect a free town, along with certain privileges or rights to fish on the coast of Ireland. That enlightened, talented and gifted gentleman, Mr. Leader, the late Member for Kilkenny, is aware of this curious circumstance.

3107. Do you know how those works are carried on in Holland; at whose expense?—Large tracts of land covered with water, have from time to time been taken in by the Government of that country, and at its expense, and under the superintendence of the engineers of the Water Staat; those tracts recovered have been sold in some cases, and they did not bring in as much as would pay all the expenses; but the annual tax existing on the recovered land fully indemnified the Government. The late Alexander Nimmo, in his evidence, has given an account of one polder drained; and I now beg to mention, that at this very moment, there are several hundred men now employed in the island of the Texel, embanking in from the sea a large extent of marine ground; it contains an area of 3,000 bunders. The sea dyke, which is to keep out the waters of the ocean, will be six miles long, and is now executing with all the skill and talent which so pre-eminently distinguish the Dutch engineers in this species of hydraulic work. This embankment is considered to be one of the largest of the kind, as well as one of the most interesting that has been undertaken in Holland for the last century. It is a company that is carrying on this work, and they have purchased from the Government of Holland whatever interest it had in this large tract of sea land on the shores of the Texel island. There is also some plan about being adopted for draining Haarlemmer-Meer, an inland sheet of water, containing about 60,000 acres. In attempting the drainage of so large a lake, the Dutch have frequently thought there might be danger of the sea bursting in through the sandy ground, as the bottom of Haarlemmer-Meer is below the level of the ocean. They no doubt remember with pain the melancholy catastrophe which happened at Moordyke above Dort in 1420, when seventy villages were overwhelmed and entombed by the ocean; forty of these villages were recovered, but thirty of them still remain under its dominion. The Government have been thinking of embanking in a large portion of this lost land, as it has risen considerably in some parts. The whole works of Holland, the canals, roads, embankments, basins and drainage have cost nearly 400 millions of money, and cost annually 1,200,000*l.* to keep them in repair. Those works are all under the administration of the Water Staat and their chief engineer, with assistants. Holland is unequalled by any country in Europe for its singular situation; having been embanked or dammed in from the waters of the German Ocean, it offers to the contemplation of the hydraulic engineer a subject of the deepest interest. The simplicity and economy of the construction of their wooden piers, bridges of brick, sluices, flood-gates and bascule bridges, a species of engineering works with us of the most expensive and costly kind, forms a very striking contrast. It has however been said that a dock fit for ships of war could not be constructed in Holland for less than 100,000*l.*, stone being so expensive; the white free stone in the Staat House at Amsterdam was taken from Fifeshire in Scotland. The windmills may be called the steam engines of Holland; there are nearly two hundred of them in the province of Delftland, which is about 50 to 60 miles long, to drain in the spring all the flooded plains; these mills go by wind, and raise four feet high 700 hogsheads or casks of water per minute; each cask contains about 5¼ cubic feet du Rhin. The windmills not only drain the country, but grind corn, crush rape for oil, and a very great number saw wood, and even some prepare snuff. What the extent of the windmill power possessed by the Dutch is I cannot say, but it must be very considerable. I have mentioned this in order to show that there exists a cheap power capable of keeping dry any lands that might not be level-free in Ireland, and particularly those tracts situated on the coast, should they require it. Amsterdam contains a population of about 180,000 inhabitants, Dublin 250,000 inhabitants; Holland contains a population of 2,758,632, Ireland a population of nearly 8,000,000; the extent of Holland is 6,400,000 acres; Ireland contains an area of 20,000,000 of acres; Amsterdam possesses a ship canal 50½ miles long, more than 120 feet wide, and more than 20 feet deep. This canal is capable of floating into the very town of Amsterdam, from the deep sea at the Helder, the largest class of vessels, while the large and populous city of Dublin has no such advantage to carry on a foreign trade. The extent of Ireland, the size of Dublin, the quays of the Liffey the finest and most extensive in Europe, the position of the Custom House and docks, all proclaim that there should be a canal from the deep water into the city of Dublin, capable of floating up the largest

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class of foreign vessels. In point of population, in point of territory, the capital of Ireland requires a ship canal even more than the capital of Holland.* Just glance at the position of Ireland in the Atlantic, facing with her southern and western shores the coasts of France, Spain, Portugal, the West Indies and the gigantic infant republics of the American continent; on the north opening to the whole wealth of the northern and western fisheries; while her eastern shore, since the invention of steam navigation, may be said to touch the greatest commercial and manufacturing nation in the world; yet her capital, Dublin, cannot be approached by any class of vessels engaged in foreign trade, for the want of a ship canal of a very few miles in length, and which is quite practicable to be executed with facility. The Amsterdam Canal is the largest in the world; its sectional area is greater than the Caledonian Canal, and twelve times larger than the great western American Erie Canal, and six times larger than the Languedoc Canal, which has conferred so much benefit on the south of France, and which was projected by that enlightened statesman Colbert, to whom France is indebted for the first rise of her navy, and the inimitable and yet unequalled style of marine architecture which has ever since his time characterized the naval department of that country. The expense of the Languedoc Canal was partly paid for by the province of Languedoc, and partly by the King of France, Louis the Fourteenth. The Dutch Canal of Amsterdam cost about 750,000*l.*; it was begun in 1819 and finished in 1825, at the expense of the Dutch Government. This canal has been of much public benefit to that country in admitting large ships readily from the deep water at the Helder up to the city of Amsterdam, and avoiding the navigation of the Zuyder-Zee, so beset with shoals throughout; besides, below Amsterdam, about seven or eight miles, is the Pampas, or bar of the Zuyder-Zee, which has only about eight feet of water. In or about the year 1668, when Amsterdam was the most commercial port on the west of Europe, the bar or Pampas of the Zuyder-Zee was so much felt that Barker, the burgomaster of that city, invented the Camel, a species of boxes, to enable ships to sail over this bar; but although the Camel lessened the ships' draught of water, and enabled them to pass, yet on the other hand the ships were strained and injured by its application; large ships were therefore obliged to unload part of their cargoes at the Pampas before they could enter the port of Amsterdam.

The Amsterdam canal is 50½ English miles long, and in Rhynland feet is 120 feet wide at water's surface, and 20 feet deep; but in English feet it is 123 feet 7 inches at water's surface, and 20 feet 7 inches deep. Like the canals of Holland in general, its level is that of the high tides of the ocean, and from which it is supplied with water; it required only two tide-locks, one at each end; there are 4 sluices and 18 draw-bridges; the locks and sluices are double. At the fine harbour of the Nieuwe Diep is a powerful steam engine to supply the canal with water during neap tides. The time generally taken to track vessels along this canal from the Helder to Amsterdam is about 18 hours. A ship canal has within a few years been cut across the island of Voorn, of about five miles in length, from Hellevoetsluys to the Maas, and is of immense service to Rotterdam, as ships can enter and also go to sea from the Maas through this canal at any time, and is now generally taken by vessels drawing from 16 to 17 feet of water, instead of the old and intricate channel round by the Briel. Thus the two chief cities of Holland can readily be reached by all classes of foreign trading vessels in consequence of having two ship canals.

The city of Glasgow, in consequence of the improvement of the River Clyde navigation by deepening, has so much increased in trade that the annual harbour dues of 147*l.* in 1770, is now more than 25,000*l.* a year, and the river has been deepened from 4 feet to 15 feet. I am not able to say just now what is the value of the moving force or power of the tidal and river waters to ships going up and down the estuaries of the Thames, the Clyde, the Liffey and the Boyne daily, but I think it would be worth investigating. The power of tidal rivers up and down must possess great advantages over still-water navigations, where horse-power must be employed. If steam-boats from the ports on the North coast of Ireland, for example, from Belfast, could navigate across from the Clyde to the Forth, the voyage to London would be shortened above 200 miles going, and returning 400 miles, and the dangerous and circuitous voyage round the Land's End altogether avoided. There are other immense advantages which this navigation would open up if once done on a large scale.

3108. Could you mention any towns where canals have been made, for the purpose of supplying them with fuel, where it has been afterwards necessary to construct

* That enlightened statesman the late Viceroy for Ireland, the Marquis Wellesley, fully appreciated all the national benefits that would arise from the execution of such a work.

struct a railroad for the same purpose?—Yes; the city of Glasgow many years ago had the Monkland and Ardrie Canal constructed for the purpose of supplying it with coal; and they have, within a few years past, constructed a railway, called the Garnkirk Railway, which is more than eight miles long, with branch lines to the collieries. It cost almost 80,000*l.*, and it now delivers into the city of Glasgow 136,556 tons of coal annually, besides stone and brick; it has reduced the price of coal in Glasgow to 6*s.* 6*d.* per ton, formerly about 9*s.* Coals cost for carriage on the railway for 8¼ miles the following prices:—6*d.* per ton for carriage of 8¼ miles; 3*d.* per ton for haulage for 8¼ miles; 1½*d.* for use of waggons for carrying 1 ton for 8¼ miles; total, 10½*d.* for carriage of 1 ton for 8¼ miles. Both railway and canal have plenty to do; Glasgow consumes annually about 600,000 tons of coals, but the quantity raised in the neighbourhood amounts to between 700,000 and 800,000 tons of coal. Darlington Railway, which is 25 miles long, can convey from Brusselton to Stockton, distance 25 miles, and deliver into the ships from 500 to 600 tons of coal weekly, carried at the rate of one penny per ton per mile. Coals formerly sold at Stockton at 18*s.* per ton are now selling for 8*s.* 6*d.* The city of Edinburgh paid as high as 18*s.* per ton for coal before the construction of the Union Canal, which runs from Glasgow to Edinburgh, and which cost 400,000*l.* One of the principal objects of that canal was to supply the city of Edinburgh with coals at a cheaper rate, and I think coals were reduced in price per ton from 18*s.* to 12*s.* 6*d.* The citizens of Edinburgh within a few years have constructed a railway, called the Dalkeith Railway, which extends from Edinburgh to the great coal basin at Dalkeith. That railway carries into Edinburgh about 130,000 tons of coals per annum, and is annually increasing; and they are now constructing a branch line to the town of Leith, to supply Leith also with coals by railway conveyance, for canals may be shut up by frosts in winter. Since the construction of the Dalkeith Railway, coal has experienced a further reduction from 12*s.* 6*d.* per ton to 10*s.* per ton, delivered at the houses. It therefore appears that the citizens of Dublin pay three times as much for coal fuel as the citizens of Glasgow, and nearly twice as much as the inhabitants of Edinburgh; 300,000 tons of coal are annually consumed in that city. Both the Union Canal and the Edinburgh and Dalkeith Railway have abundance to do in supplying Edinburgh with coal. The run of coal boats on the Union Canal at Edinburgh is about 25 miles, with no locks to pass. The Edinburgh and Dalkeith Railway is about 9 miles 420 yards long, and cost about 120,000*l.* Where there are so many thousand acres of bog lying within 30 and 40 miles of Dublin, with a level country descending from the bogs towards that city, extremely favourable to a trade in that direction, it appears to me, and has done so for some years, that it would be of the greatest public utility to endeavour to form some plan, by railway conveyance, to supply Dublin with turf-fuel in greater abundance, and at a cheaper rate. This would employ annually many thousand men, and keep immense sums of money in Ireland, to be expended among the labouring population; draining the bogs and preparing the turf-fuel to supply the Dublin market, and which now goes to England. Besides it would be the means of improving the great bog plains, converting them into excellent corn land, pasture and meadow; and it would also purify the atmosphere and improve the climate.

3109. Are you conversant with the present system of county engineers, and the new Grand Jury Act?—Yes.

3110. Be so good as to state any improvement that you are able to suggest?—I think it is quite wrong to give the county works, by contract, into the hands of the lowest bidder. I think the law in this case ought to be altered, because it throws the works into unskilful hands. I think it quite proper that extensive road and bridge works should be placed under experienced and skilful persons; but I am of opinion that the engineers placed in many of the larger counties in Ireland should have assistants, because it is almost impossible that one person alone could personally do all the duties which the law regulations now require; in many instances two and three assistants would be required. It would also, in my opinion, be a most desirable object to have a school of roads and bridges established in Dublin, for the purpose of imparting both theoretically and practically knowledge to young men, who would be desirous to become assistant engineers; the ancient and modern analysis to be carried to much extent, and to form the first class; and the examinations in those branches to be rigorous and exact, because the engineers' power of investigation will after be in proportion to the proficiency he may have made in those luminous and useful branches of science. The young men should be

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taught how to use the sextant, theodolite and spirit level, the modes of adjustment, and such an insight into their construction as should always enable them to work accurately without fear of errors arising from derangement; drawing of maps, designs for bridges, for locks for canals, harbours, sections, &c. &c. Lectures should be given on the laying-out of canals, harbours, roads, railways, &c. &c., and such other works as form the travaux of the civil engineer; knowledge both theoretically and practically to be fully and clearly imparted. The young men should also construct and make models of bridges, locks of canals, and such other engineering works as may be deemed interesting. Nothing will convey and fix knowledge so much, or make them remember more perfectly all the parts of a work, as modelling it; and for this purpose a few models should be procured, not only to model by, but to draw maps and designs from; and they should be deposited in the model-room of the school, in which should also be lodged from time to time, models of the most remarkable works which may be executed in Ireland or other countries. I beg leave to observe that all this is nearly in accordance with the Ecole des Ponts et Chaussées at Paris, and from which school have emanated the best educated and most scientific engineers which have yet appeared in Europe. Their writings on engineering are by much the most considerable and instructive that any nation has yet produced. The model-room of the Ecole des Ponts et Chaussées is, perhaps, one of the most interesting apartments that a man of practical science could enter; indeed, the whole arrangement of their mode of instruction may be fairly offered to other countries for imitation. The genius and talent of the learned men in France are recognized, sustained and esteemed by the people and government of that country; and the consequence is, that they hold the first rank among the nations of Europe in almost all the departments of science. The works published during the last fifty years have justly assigned to them this pre-eminence. I therefore do, in the strongest manner, recommend to the consideration of the Government the formation of a school to prepare young men for the duties of a civil engineer, and who are to be occupied with the execution of works which are to spread improvement and civilization through the land. I have already mentioned a model-room as being necessary to this establishment. I may also add the great advantage which would be derived in having a library containing every thing useful and practical that has been written on civil engineering. Ireland contains not less than

	ACRES.
	4,500,000 of bog requiring to be drained.
About	350,000 of large lakes.
Ditto	200,000 of land covered by the sea at high water.
Ditto	200,000 of flooded lands along rivers requiring improvement.
	5,250,000

All this combined with the improvement and formation of roads, canals, piers, harbours, railways, &c. &c. offers an immense field to the operations of the scientific and practical engineer. Although the formation of institutions and societies for learned purposes are very much to be admired and encouraged, yet on the other hand the establishment of a school for civil engineering claims particular attention; because no such thing yet exists in any part of the British dominions.

3111. Have you turned your attention to the drainage of any of the large lakes in Ireland?—Yes, I have.

3112. Do you conceive any considerable extent of ground could be restored by drainage?—I am of opinion that a reduction of the waters of lake Mask to the level of Lough Corrib would probably leave dry very nearly the whole of Lough Carra, containing 3,000 acres; and also I should think the greater part of Lough Mask, which contains about 21,000 acres.

3113. How much of Lake Mask?—I should think a very large portion of it. The bottom of Lough Carra consists of marl, and did not appear to me to be a deep lake; that of Lough Mask I should apprehend to be very deep towards the mountains on the Joyce Country side; their drainage would also leave dry the whole of the flooded basin of the Robe River many miles into the interior of the country; and it would, in my opinion, give an effectual fall to the waters of the interior districts, probably to an extent of not less than 200 square miles. The lowering of the water of Lough Mask to the level of Lough Corrib would give a drainage to more than 150,000 acres of an inland country; but if a full command of the water basins of Lough Mask and Lough Carra, containing 25,000 acres, having a fall of 36 feet, with a catchment basin above, embracing a surface of more than 500 square miles,

was

was attained, there would be a magnificent command of water for irrigating to an immense extent, or a water power of the following magnitude :

$$5280^2 \times 1\tfrac{1}{2} = 41817600 \times 500 = 20908800000, \frac{20908800000}{525600} = 39780$$

cubic feet in a minute.

$$39780 \times 62\tfrac{1}{2} \times 36 = 89505000, \text{ momentum fall 36 feet } \frac{89505000}{44000} = 2034 \text{ horse power}$$

working 24 hours.

But under sluice and dam 4068 horse power, at 12 hours' working each day, or equal to 81 steam engines of 50 horse power each.

Loughs Conn and Cullin contain an area of 14,000 acres and are elevated above the sea 27 feet; these lakes by sluice and dam might be kept to their summer level, and without losing the power of being able to irrigate the whole of the low lands which surround their borders to even the highest winter level of their waters. Cutting through the rock which forms the fall at Foxford would give full command of the water basins of Lough Cullin and Lough Conn; the area of the catchment ground of the River Moy, Deel, &c. feeding these lakes, is not less than 900 square miles, and the water power is about as follows :

$$5280^2 \times 1\tfrac{1}{2} = 41817600 \times 900 = 37635840000, \frac{37635840000}{52560} = 71605$$

cubic feet in a minute.

$$71605 \times 62\tfrac{1}{2} \times 27 = 120833424, \text{ momentum fall 27 feet } \frac{120833424}{44000} = 2746 \text{ horse}$$

power working 24 hours.

But working under sluice and dam 5492 horse power at 12 hours' each day, nearly equal to 110 steam engines of 50 horse power each.

In the Annuaire for 1835 are to be found some interesting results regarding the quantity of water discharged into the sea by the Seine river, as compared to the quantity of rain, dew, &c. falling annually within its catchment or feeding basin; the measurements of M. Dausse, Ingenieur des ponts et chaussées, establish facts at very great variance with those given by Perrault and Mariotte. I have just mentioned this, lest it may be thought the number I have taken for the depth may be considered too great. Many thousand acres of land might be recovered from Lough Neagh as well as from almost every large lake in Ireland. Indeed an investigation by actual survey of the extent of ground which might be recovered from the lakes in Ireland, would be a most important and useful inquiry.

Description of Blacksod and Broadhaven.

Blacksod Bay or Blacksod Harbour, on the West coast of Ireland, is from its entrance at Blacksod Point to the Bellmullet $10\frac{1}{2}$ miles long. The mouth of this harbour at Blacksod Point is $2\frac{1}{2}$ miles broad, and widens inside to a breadth of more than 6 miles. It may be taken at an average breadth of 3 miles for a length of 8 miles, which assigns to this spacious harbour an area of 24 square miles, or 15,360 acres. The depth of water at its entrance is 13 fathoms, and continues inwards to be 11, 7, 5, $4\frac{1}{2}$, and 4 fathoms deep. Vessels generally lie up at Elly harbour in $4\frac{1}{2}$ fathoms, and which is situated within Blacksod.

Broadhaven Harbour is situated within 600 feet of Blacksod. It is $6\frac{3}{4}$ miles long from Gubacashil Point at its entrance to Bellmullet. This harbour is three quarters of a mile wide at its entrance, and has a depth of 11 fathoms of water, and continues inwards to a distance of three miles to be 11, 4, 3, $4\frac{1}{2}$, 8, 7, 4, $2\frac{1}{2}$ and 2 fathoms deep. These two harbours of Blacksod and Broadhaven are only separated from each other by a very low boggy isthmus of only 200 yards across; consequently they could be easily united by cutting through this isthmus, and floating basins to any extent might be formed to receive ships of any class should it be found necessary; and there is an abundance of excellent granite to be had at Blacksod Point, admirably suited to engineering works of any kind. These two harbours of Blacksod and Broadhaven are completely covered, defended and protected from the Atlantic by the breakwater of the Mullet, which is 15 miles long. These combined harbours possess entrances both to the south and also to the north, affording perfect and full security of sailing out and in. Further, these harbours in south and south-westerly winds have no lee-shore northwards, such as all the harbours situated southwards, on the West coast of Ireland, really have. By referring to any good map of Ireland this will at once be clearly understood, and also the seaward position of Broadhaven and Blacksod into the Atlantic, points them out as being the most commanding harbours on the western shores of Ireland. Nature has pre-eminently distinguished

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and signalled these harbours, because Achil Head and the Saddle of Achil Head, forming the land on the south side of Blacksod, is, without exception, the most lofty headland on the west coast facing the Atlantic, being 2,254 feet high, and which can be seen seaward in the western ocean at a distance of 58 miles, as before mentioned. The value of this to the mariner can only be fully appreciated by those versed in nautical affairs.

I shall now refer to the charts and descriptions of these harbours and a few others, by Murdoch Mackenzie, a pupil of the celebrated Colin Maclaurin, Professor of Mathematics in the College of Edinburgh. Mackenzie was a man of science, and actually surveyed and navigated the whole shores of Ireland for the Admiralty; his charts are drawn with very great simplicity, and his nautical descriptions are clear and distinct. Mackenzie's charts of Blacksod and Broadhaven bear the date of 1768, and are remarkably good performances in hydrography, for that period; but I am very far from attempting to compare them with either the science, detail of execution or engraving, which so very pre-eminently distinguish those late hydrographic charts executed by the Depôt de la Marine of France, and which reflect the highest honour on the Government of that country for having published, and continuing to publish, such a numerous series of such cheap and accurate charts, so admirably suited to all the most useful purposes of maritime navigation.

MACKENZIE'S DESCRIPTION OF THE HARBOURS.

Blacksod Bay.

BLACKSOD BAY is pretty well sheltered, the ground clean in most parts, and the water sufficiently deep for large ships; but the ground being a hard sand, it is not thought that it will hold well in hard gales from the W. or S. W., especially in the winter time, when these winds set in a great swell.* The best anchorage is on the west side of the bay, about a quarter of a mile southward of Barnach Isle, on four-and-a-half or five fathoms, &c. &c.

Broadhaven Harbour.

In this harbour the proper anchorage is well sheltered, the ground good, and the water of a sufficient depth for any ship, &c. &c.

Bantry Bay.

Bantry Bay is a large, safe and commodious place for ships and vessels of all sizes. The stream of tide is scarce sensible in any part of it. The water is of sufficient depth almost close to the shore on both sides, and no rocks or shoals in the way going up but what may be easily avoided in the night-time. The best anchorage for large ships is at the east end of Whiddy Island, either on the north or south side of Horse Island, on from six to ten fathoms water, &c. &c.

Bearhaven Harbour.

Bearhaven is an extraordinary good harbour; large, well sheltered, sufficiently deep for the greatest ships, and the ground very good every where. There are two entries to this harbour, one along the west end of the island, the other along the east end; the west entry is most direct and readiest for vessels coming from the westward or southward; but the east entry is rather the safest for one that is a stranger. The anchorage is any where on the north side of Bear Island, from five to eleven fathoms water, &c. &c.

Kenmare River.

This river (more properly an arm of the sea) has deep water and clean ground in almost all parts of it that are above a quarter of a mile from the land, and nothing that any ship need be afraid of out of the bays, but Maiden Rock off Rossmore Island, and Roanharrick Rocks near Kepinacosh Islands. The best harbours in Kenmare are Sneem, Ardgrume, Kilmichaeloag and Danish Island.

Valentia Harbour.

This harbour is good ground, well sheltered and capable of the largest ships. The best entry to it is at the east end of Valentia Island, where the best anchorage also is. Anchor on the south side of Begginish Island, any where between it and the foot or eastmost point of Valentia, on five or six fathoms water, above a cable's length form the shore; or pass Foot Point and anchor off the House Ringlass on four fathoms.

In the east entry of Valentia there is a rock nearest the west side, about a quarter of a mile southward of the ruinous houses, called Cromwell's Fort, which dries at a quarter-ebb, and is to be taken on the starboard-hand going in. You are on the north side of this rock half a cable's length when the south point of Begginish Island bears on the sharp-topped hill next eastward of Rinaard Point. You avoid it on the east side, when the tapering hill on the Great Blasket bears on the extremity of the Foot Point. Near the west-end of Begginish Island, over-against Cromwell's Fort, there are two small rocks, that lie a quarter of a cable's length farther out than other rocks there that are always above water. One of these dries at half-ebb, the other about low water, &c. &c.

There is a gravelly beach which extends from the Foot Point of Valentia eastward toward Rinaard Point, about half over; the extremity of it is dry with spring-tide only. To avoid this shoal, keep one-third from Rinaard Point and two-thirds from Foot Point, &c. &c.

The

* Moorings could be easily put down; but I have not heard of ships not being able to ride out safely the heaviest gales of wind in that harbour.

The west entry of Valentia Harbour is clear of shoals as far up as Portmagee; right opposite to which, on the Valentia side, there is a small bay where a vessel may stop on two fathoms, clean sand and pretty good shelter. To go up further into better shelter requires high water and a skilful pilot; for when you pass the small island at Portmagee there are shoals on each side, and the channels between them narrow and irregular.

The River Shannon.

The Shannon is a river of easy access, where fleets of the largest ships may ride in safety in all weathers. There is a light kept on Loop Head at the mouth of the river, which may be seen four leagues off, &c. &c.

Birterbui Harbour in Galway.

Birterbui Bay is capacious, well sheltered, good ground, and capable of the largest ships; vessels may ride on the east side of Ilanochly on from four to eight fathoms water, or any where above that, near the middle of the bay, &c. &c.

As much difference of opinion has arisen respecting what particular parts of Ireland would be crossed by a straight line being drawn on the surface of the globe between Liverpool and St. John's in Newfoundland, I have drawn out a map taken from the sphere, in which parts of both Europe and America are shown, and also the straight line crossing Ireland, running between St. John's and Liverpool, and which line crosses through Clew Bay in Mayo.

Further, suppose a ship is going from the Land's End in England, lat. 50° directly across the Atlantic on an arc of the sphere, to Cape Race, Newfoundland, lat. 46° 40′, she will reach, in crossing the Atlantic on this line, to lat. 50° 45′, which will be about 45 geographic miles to the north of the Land's End. To prove this it is only necessary to examine a sphere, and see how the straight line between the Land's End and Cape Race cuts the parallel of lat. 50°. To illustrate this fully, I beg leave to refer to the two small maps which I have drawn out, and now deposited with the Committee.

Map No. 1. contains the British Empire, and on which is delineated the London and Liverpool Railway, and the various lines across Ireland to Galway Bay, Broadhaven, Westport, &c. &c., and the Western Railway from London to Bristol, and the railway connexion from Waterford to the harbours of Valentia, Bantry Bay, Bear-Haven and Kenmare River.

Map No. 2. exhibits the Atlantic, with the shores of Ireland on one side and those of Newfoundland on the other. These Maps will be found to show the true positions and to afford any explanation required.

The following Table of Latitudes and Longitudes may be found useful:

	Latitude.			Longitude.			
	°	′	″	°	′	″	
Paris (Observatoire) - -	48	50	14	0	0	0	Conn. des Tems.
Greenwich (Observ.) - -	51	28	40	2	20	15	
Dublin - - - - -	53	23	13	8	40	45	Riddle.
„	53	21	11	8	39	0	Conn. des Tems.
St. John's, Newfoundland -	47	33	45	55	0	0	Conn. des Tems.
„	47	34	35	54	58	52	Purdy.
Liverpool - - - - -	53	22	0	5	17	0	Conn. des Tems.
Ditto - - St. Paul's -	53	24	40	5	19	10	Mudge.
London, St. Paul - -	51	30	49	2	26	2	Mudge.
Bristol Cathedral - -	51	27	6	4	55	44	Mudge.
Cork - - - - -	51	53	54	10	50	15	Longfield.
„	51	51	50	10	49	15	Conn. des Tems.
„	51	55	31	10	36	45	Riddle.
Bellmullet, at Blacksod, and	54	10	15	-	-	-	L'Evêque.
Broadhaven - - -	54	13	24	-	-	-	William Bald.
Bantry Port, Sheep's Head	51	36	0	12	24	15	Malham.
Galway - - - - -	53	28	30	11	33	15	Ducom.
Achil Head - - -	54	7	0	12	51	15	Ducom.
„	53	58	20	-	-	-	William Bald.
Clare Island Light-house -	53	58	0	12	33	15	Ducom.
Ditto - - ditto - -	53	49	34	-	-	-	William Bald.
New York - - -	40	42	0	76	28	15	Blunt.
„	40	40	0	76	18	52	Oltmanns.
Halifax - - - - -	44	44	0	65	56	0	Conn. des Tems.
„	44	36	0	65	48	15	Blunt.
Valentia Harbour, Ireland -	51	55	25	-	-	-	Chart published by the Admiralty

Longitude from Greenwich 10° 16′ 34″

Mr. *William Bald.*

19 June 1835.

On the Utility of the Formation of Seaward Harbours on the Coasts of Mayo and Galway, and which lie most adjacent to the Great Fishing Banks and Fishing Grounds.

THE extreme seaward position of the isles of Innish-Kea, Innish Bofin, Innish Turk and Clare Island, claim attention not only on this account, but also for their contiguity to the best and most productive fishing grounds and fishing banks which lie off that part of the coast of Ireland, and on which there are in particular an abundance of cod and ling of the best kind.

The improvement of Bofin Harbour, by erecting a small tower or beacon on the sunk rock and shoal at its entrance, would be most useful, and also landing quays within it for the accommodation of the fishing vessels and boats. The construction of harbours or breakwaters upon the other three islands above mentioned would give great facilities to the vessels and boats employed in fishing, by affording shelter and safety to them in time of storm. At the island of Innish Turk, for example, there is sometimes not less than from two to three hundred boats employed there on the herring fishery belonging to the neighbouring coast, and they are frequently exposed to the danger of being lost and wrecked for the want of a safe harbour at that island. The late Fishery Board of Ireland built a small pier in Innish Turk, but it did not afford the required safety and security to the fishing vessels and boats engaged in the fishery, besides it was allowed to be gradually carried away by the sea, which comes in very heavy from the north-west on that coast. The under ground swell of the Atlantic is very powerful, and any works erected at these islands for the protection of the fishing vessels and boats would require to be done in the most solid and substantial manner, *in great mass*; indeed any thing on a small scale would be quite useless. The erection of harbours or breakwaters on these seaward islands would not only be valuable in affording facilities to the successful prosecution and extension of the deep-sea fisheries on the great fishing banks which lie off these islands, but would also be found most useful and protective to all the trading vessels which frequent the western shores of Ireland. A breakwater at the east end of Clare Island would give great and useful security to the whole of the trading and shipping interests of the towns of Westport and Newport. Indeed a properly designed and well constructed break water at Clare Island would also give security to the whole of the fishing and coasting trade frequenting the towns and ports in Clew Bay. The position of Clare Island at the mouth of one of the largest and finest bays in Europe, points it out particularly as a place extremely eligible for the erection of an asylum harbour. It would give security and seaward protection to all vessels navigating between Slyne Head and Achil Head, a coast of several hundred miles in extent. I already mentioned I had read the report of Murdoch Mackenzie in favour of a harbour at Clare Island; I have also to add that I read the report of the late William Wallace, civil engineer, with whom I was well acquainted, and who was employed a few years ago by the Viceroy of Egypt to deepen and improve the port and canal of Alexandria, and in which country he unfortunately perished. Mr. Wallace's report is extremely favourable to the erection of a harbour at Clare Island; and in addition I have read the report of James Murray, an engineer of considerable power and talent, and who died in early life while engaged in the execution of the works of the Royal Canal in Ireland; his report is also extremely favourable to the great utility of erecting a harbour at the east end of Clare Island. I am not aware of any place on the west coast of Ireland where an asylum harbour is so much wanting as one at the east end of Clare Island; it therefore claims national attention for the protection it would afford to the general maritime trade of the country on that coast.

The chief, ruler or statesman that will be able to form asylum harbours on the unsheltered and dangerous parts of the coast, and will also cause to be marked or beaconed, by the erection of granite towers, the dangerous rocks, the shoals, and the reefs which surround the shores of these kingdoms, thereby giving safety and security to the mariner in time of tempest and storm; also safety to the floating wealth of these realms, and the colonies thereunto belonging; also lessening the wail of the widow and the orphan throughout this maritime land; will not only receive the blessings of future generations for the erection of these works of mercy, tending so much to the preservation of life and property, but will also increase, to a great extent, the wealth, the power and prosperity of the whole empire.

It would be a most interesting as well as a most useful investigation to sound and lay down in chart form all the fishing banks and grounds which lie off the west coast of Ireland; because these fishing banks are more valuable in a national point of

of view than mines of silver, if but the art and industry of man could once be fully employed in drawing in the stores of wealth which abound on them. Raynal has said, "Mines can be exhausted, and the fisheries never are; gold is not reproduced, but the fish are so incessantly." *Mr. William Bald.* 19 June 1835.

It is a well-known fact that the inhabitants of Barra, one of the Hebrides or Western Isles, carry on a most profitable and remunerative trade in fishing for cod and ling, which they carry in a dried and prepared state round the Mull of Cantire to the Clyde and Glasgow, where it is sold; this fishing trade is only pursued during the early summer months, and which is to them a source of very great wealth.

I beg leave to recommend or rather to suggest, that the large manuscript maps of the bogs in Ireland, which are deposited in the Royal Dublin Society, be cut into compartments, and bound into volumes in Atlas form, because in that state they will remain perfect for ages; whereas at present they are on rollers, forming very large maps, which are difficult in the extreme to be preserved; the very rolling up and down will wear them away; and as those surveys, maps and reports have cost nearly forty thousand pounds, it would be in my mind extremely proper that every means should be taken to preserve them as long as possible. The manuscript reports and sections might also be bound into volumes, and the whole could be then deposited into the library of the Royal Dublin Society, and the expense of doing this would be very trifling. The idea of arranging the bog maps in this manner occurred to me when I saw in the Bibliothéque du Roi how the French had preserved the original manuscript map survey of Ireland, by Sir William Petty, in so perfect a manner, for more than one hundred and sixty years; these maps, in two large volumes, can be readily seen in the *Manuscript* department of the National Library at Paris. The ship which was carrying the maps from Ireland to England was captured by a French privateer from St. Malo, and the maps were then deposited in the archives of France, where they have since remained, and where that attention has been paid to their preservation which every lover of science must admire.

FitzStephen French, Esquire, a Member of the Committee; Examined.

3114. HAVE you turned your attention to the waste lands of Ireland?—I have. *FitzStephen French,* Esq. M.P.

3115. What is their extent?—Mr. Cowley estimates as capable of improvement 4,900,000 acres, as not improvable 2,416,000; the public records in 1824, gave them at five millions and a half improvable waste lands, and half a million unimprovable; Mr. Newenham at 4,800,000 improvable, and 1,185,585 not improvable; Mr. Griffith estimates the whole of the waste lands at 5,340,736 acres.

3116. Do you consider the reclamation of those lands of great importance?—Certainly; if Ireland is so productive with 12 millions and a half of arable acres at present under cultivation, how much more so (independently of the employment to be given to the population) would she be when the amount of arable land was increased to 18 millions of acres?

3117. Do you consider that labour could be profitably applied in Ireland?—Nowhere is labour more required, nowhere is it so redundant; more than one-eighth of the population, for four months in the year, are without employment.

3118. Have you reclaimed any bog?—I have.

3119. What do you consider to be the average expense per acre?—The bogs that burn red or yellow ashes are easily reclaimed; the bog that burns white ashes requires more time and a much greater outlay of capital. Generally speaking, as far as my experience leads me, I think they may be drained and levelled at about 1*l.* 10*s.* an acre, and covered with gravel or other calcareous substances at from 2*l.* 10*s.* to 3*l.* per acre. I am aware that Mr. Griffith estimates the claying much higher, but I should be afraid to put four inches deep of gravel or clay on a bog at the time of reclaiming it, considering as I do that the weight of the gravel would sink it through the bog.

3120. Have you seen the Report of the Bog Commissioners?—I have; and in a small way have executed some of the works laid out in them. I found the drains could be made at somewhat about half the price laid down for them in the estimates, and I can only conceive the sums given by the engineers to be required to a very great increase in the value of labour, which might be the consequence of an increased demand for it.

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3121. Do you consider that Government ought to give any assistance towards the reclamation of these lands?—I think the rivers that would serve for the main ventages of the different bog districts, should be opened at the expense of Government; and that some assistance should be given towards opening the roads throughout the deep and inaccessible districts of bog, as Colonel Burgoyne, Mr. Griffith and others have so fully stated to the Committee; and if the Government did so much, I am confident that the private capital of the country would effect the remainder. By the word capital, I mean not only the pecuniary means of the upper and middling classes, but the labour of the lower orders, which must be considered as capital, although at present it is perfectly unprofitable.

3122. Do you think that the people could be advantageously located upon these waste and bog lands?—I do; I made an experiment on a small scale myself with seven families who had been dispossessed of their holdings, and who had no property of any kind among them. I built houses for them, and they have now reclaimed from three to four acres apiece, and there is not one of those families now without a milch cow.

3123. What crops do you consider bog or waste lands will yield when reclaimed?—All green crops, such as potatoes, carrots, rape, mangel-wurzel, cabbages, white crops, though generally speaking the grain is not so full as in the upland; it runs more to straw; rye does better than any other grain; all grasses do remarkably well in bog lands, especially Fiorin and Timothy.

3124. Do you consider it the custom in Ireland for all landlords to allow for improvements made by their tenants?—I do; for improvements of a certain kind, such as limeing and gravelling, if undertaken on certain conditions; such as allowing the lands to remain after the gravel has been turned out, without breaking up for three years. If it is suffered to remain thus long, we consider the benefit the land receives to be visible for 20 years; but if the land be broken up immediately, the benefit is confined to the crop. In the former case it is just that the landlord should allow for the benefit conferred on the land, and in the latter, the benefit being enjoyed exclusively by the tenant, he has no claim for an allowance.

3125. Do you consider the lands so reclaimed likely to relapse?—No, the improved bogs mentioned by Arthur Young are reported by Mr. Griffith in his bog surveys, 40 or 50 years afterwards, to be profitable land, and not to show any appearance of relapsing into their former state.

3126. Generally speaking, is not the land of Roscommon of a very superior description?—A large portion is of the finest description of land in Ireland; but there are considerable tracts of lighter land, and a large tract of waste.

3127. What do you consider the average price of the rich lands in that county?—About 35*s.* the Irish acre. These lands are chiefly devoted to pasture, and are held in large tracts by the great graziers, men of capital, intelligence and industry, who will not give a higher rent for their farms than that which will enable them to receive a fair return for their time and capital. The poorer lands rate comparatively higher in consequence of the competition for land amongst the lower orders.

3128. What do you consider the fall in the value of land since 1814?—From 45 to 50 per cent.

3129. You stated that there are large tracts of waste in the county of Roscommon; what is the amount, and were those tracts included in the bog surveys?—They amount to 80,000 acres; they will be found in the bog reports; the Lough Gara district, surveyed by Longfield; the Upper and Lower Suck, by Griffith, and the district of the Shannon, by Edgeworth.

3130. At what rate was the reclamation of these bogs estimated?—Mr. Longfield estimated the drainage, making the necessary roads and deepening and improving the navigation of the rivers, at 1*l.* 17*s.* 2*d.* per English acre. In his plan he lays down several navigable cuts, with a view of employing them as small canals for the conveyance of gravel and manure, and for carrying into effect a system of irrigation, the effect of which has been found very useful in the reclaiming of bog. Mr. Griffith estimates the drainage alone in his district at 1*l.* 3*s.* per English acre. Mr. Edgeworth proposes the introduction of railroads; a suggestion which has lately been adopted by Mr. Featherstone, Lord Clonbrock and others. I do not exactly know what estimate Mr. Edgeworth has made of the expense.

3131. Do you consider the estimates made by these gentlemen likely to cover the expenses?—I do; Mr. Griffith, Mr. Aher and other engineers have told us that their subsequent experience has not induced them to alter their opinions; and

Mr. Nimmo has estimated the making of the roads and the drainage of the districts he surveyed at 1*l.* per English acre.

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3132. If the Government, or a company of individuals, were to undertake the reclaiming of the waste lands of Ireland, do you think they might equitably claim from the proprietors a portion of the improved lands in remuneration of their services?—I do; this principle has been recognized and acted upon to a great extent in England; and without some such measure I see but little prospect of the bogs of Ireland being brought into cultivation.

3133. Do you remember any of the instances in which this principle was adopted?—In the 41 Elizabeth, Captain Lovell undertook the drainage of Deeping Fen, on condition of receiving one-third of the lands reclaimed. In the forty-third of the same reign a general Act was passed for the recovering of many thousand acres of marsh and fen, then subject to commonage; and a power was given to the owner, and a majority of those having a right to common, to convey to the undertakers such parts of the land as might be agreed on by way of reimbursement. From this Act the Crown lands were excepted; but James I., seeing the benefit of the arrangement, consented that they should be brought under the same regulation. Dagenham Marshes were drained by Vermuyden, who had a portion of the land assigned to him, and confirmed by patent in 1621. In 1626, he offered to execute the great level, on condition of 95,000 acres being assigned to him. This work was afterwards undertaken by the Earl of Bedford, and a company incorporated 10 Chas. I., on the same terms; but 40,000 acres were assigned to them. As the lands were found to be still liable to be flooded in winter, the King undertook to perfect the work, on a certain portion of the lands being allotted to him. In 1649 the Bedford Company was revived, and, having obtained their original contract, completed the works in 1658. The South Holland and Lindsey Levels were undertaken by Robert Earl of Lindsey, who had 20,000 acres of the land recovered assigned to him.

Mr. *Alexander Nimmo*, called in; and further Examined.

3134. FROM your knowledge of Ireland, do you think she has increased in her agricultural pursuits?—Ireland has, in the cultivation of her fertile soil, advanced more rapidly within the last half century than perhaps any other country in Europe; and from her being almost exclusively devoted to pasture, and reduced to the necessity of importing corn to the extent of half a million, she now, with a vastly increasing population, yearly exports to the amount of four millions of tillage produce, without any perceptible diminution of her grazing system; but it is remarkable that so little exertion has been directed towards overcoming what is usually esteemed the primary obstacle in subjecting wild lands to the purposes of agriculture.

Mr. A. Nimmo.

3135. That primary obstacle is the drainage?—Drainage, one would have imagined, in such a country as Ireland, with so moist a climate, so many extensive morasses, lakes and water-flats, should have attracted the earliest attention, and he now well understood. From various circumstances, however, arising either from her political troubles, or the late period at which her people began to study the means of agricultural improvement, we search in vain her history for any attempt to recover those wastes, or even to free the fertile bottoms along her rivers from periodical inundations.

3136. Do you not think that the damming up the rivers is a great cause of the extent of waste land?—Independent of the vast bogs which overspread great part, and especially the centre of this fair island, a number of her rivers and streams are still allowed to extend themselves over wide tracts, which, if embanked, drained and cultivated, would be found most productive land. Mill-sites, injudiciously chosen, and even pitiful eel-weirs, are permitted to dam up these streams, and to inundate or damage the most valuable meadows.

3137. What is the cause of this neglect?—The radical cause of this apparent neglect is the want of co-operation, rather than of capital; for in a country abounding in hands, all that is wanted is to set them to work. The numerous and idle poor already exist, and are supported. No additional expense, therefore, can fall on the community by employing them in useful works, over what is at present required to keep them in unproductive and often mischievous idleness.

3138. Are there not many landlords and leaseholders in Ireland?—We have many industrious and improving landowners and lessees, who are well disposed to

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contribute their proportion towards draining the morasses, or clearing the courses of rivers and streams, which disfigure or injure their own and neighbours' lands; but from the inability, indolence or obstinacy of some of their neighbours or tenants, the variety and intricacy of tenures under which lands are held, the consequent difficulty of ascertaining the relative benefits, and levying the just proportion of contribution, these improvements are altogether prevented, or if attempted in favourable cases, are confined to the lands of an individual, whence they are usually rendered unnecessarily expensive to the undertaker, and but partially successful.

3139. What remedy would you suggest?—The remedy for this is obviously some legislative enactment, which would empower properly qualified and disinterested persons to ascertain the extent of injury, and the probable benefit to each individual concerned, to lay down and carry into effect all such measures of improvement as appeared to be of general benefit, and to defray the expense by an assessment or tax, proportionate to each person's interest in the benefit received.

3140. Commissions of this kind have long been used in England?—Yes, and have been productive of the greatest advantage to agriculture. In Ireland, I believe, there has never yet been any commission of drainage; I hope the result of this Committee will be to open the way in this department of rural policy.

3141. In another department Ireland has already reaped great benefit from the Legislature having permitted the levy of assessments for local improvements?—No doubt. Her roads, and especially her cross-roads, are confessedly the finest in Europe; and her rapid progress in agriculture, though in the central parts perhaps much promoted by her inland navigation, yet certainly is in a much greater degree owing to the excellence and facility of her inland carriage.

3142. If these improvements were made, the consequence would be a lasting benefit to the country?—The multitudes of poor, who cry aloud for employment and food, could not possibly be engaged in a more useful or promising object, than the drainage and cultivation of our marshes and wastes; thereby, while we improve our climate, and extend our agricultural territory, we may at once be relieved from idleness, famine and disease.

Mercurii, 24° die Junii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

Mr. *Charles Wye Williams*, further Examined.

Mr. *C. W. Williams*
24 June 1835.

3143. HAVE you any further suggestions to make to the Committee?—I wish to make one suggestion with respect to the importance of empowering the Board of Public Works in Ireland, where short lines of roads are of great importance; giving them a compulsory power to make such roads, or to require the grand juries of the several counties to make them. I received this day a letter, which bears so much upon the point, that I think the Committee should have it before them.

3144. Are you willing to hand it in?—Yes; it is an extract of a letter from Mr. Sharpe, civil engineer, to the Secretary of the Dublin Steam Packet Company dated Limerick, June 19th, 1835. "I have just returned from the sessions at Woodford, where I found a most determined opposition to the Williamstown Road. I succeeded, however, by a majority of one cess-payer, and this one I obtained through the influence of Mr. Glessin, the priest of Whitegate parish. Mr. ——— was the most violent opponent; but the magistrates obliged him, on affidavit, to admit the utility of the line. I have never met so severe a conflict in obtaining a presentment. I was under examination for at least two hours before the bench; and obliged to state, that if the presentment was thrown out, the Steam Company would abandon the station, and not expend a single shilling on the Galway shore. The terms of the presentment are, that the Board of Works pay one-half of the expense, your Steam Company one-fourth, and the county Galway the other one-fourth."

3145. From your own observation, has that difficulty occurred where similar lines of road have been required in other parts of the country?—Yes.

3146. Has a similar want of roads been felt in other places?—I am persuaded that similar wants would be felt along the entire coast of the river Shannon. The road

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road to which this letter refers is but a few perches long. It professes to introduce the entire of a very large district to the Shannon, and is the only road to that river along a coast of 30 miles; and yet at the sessions, so great was the objection to this road, that it was only carried by a single voice. It will be observed that the conditions on which the presentment was granted are, that a private company should pay one-fourth of the expense of the road; whereas there is not a man in the county of Galway who should not be anxious to make it. The inhabitants of Galway have no other access to the harbour.

3147. When you talk of the county of Galway, would it not be reasonable to confine the expense to the district adjoining the river?—Very likely it might; but it is so insignificant in point of expense, and the advantages of the road are so very great, that I am only surprised there should be any objection to it, and yet the most violent opposition was exerted, and the road was only carried by a single voice.

3148. You are of opinion then, that a compulsory power should be given to the Board of Public Works for the purpose of compelling these roads to be made, which, in these instances, communicate with a large river?—I am; and I am persuaded that nothing more salutary could be adopted or recommended by this Committee. I do not suppose that in all Ireland there is a short line of road so essential as this to which I allude; and I call the attention of the Committee to it, because I am persuaded it is an instance in which, if a compulsory power were given to the Board of Works, it would be exercised with great benefit to the country, in compelling such roads to be made.

3149. But there are other cases to which it might be applied with equal advantage?—Yes, in different parts of the country, and along the whole coast of the river Shannon, similar cases would occur in which it would be of great advantage to the districts to open communications with the river.

William Blacker, Esq. called in; and Examined.

W. Blacker, Esq.

3150. I BELIEVE you are a land-agent in Ireland?—I am.

3151. In that capacity have you had considerable experience in the agricultural improvement of land, and reclaiming of bog and waste lands?—Yes.

3152. Will you have the goodness to inform the Committee in what parts of the country?—In the county of Armagh chiefly; some in the counties of Tyrone and Cavan, and likewise in the county of Down. I have agencies in different parts of Ireland.

3153. Are there in any of those counties large portions of bog or waste land capable of being reclaimed?—In the county of Tyrone, on the property that I manage, there is a considerable extent of bog land, called Munchas, or islands of clay, in the centre of a boggy tract of country.

3153*. Have you reclaimed any of those lands?—There are some small portions in progress of being reclaimed.

3154. By whom, by the landlord or the tenant?—The tenant.

3155. Is there any encouragement given to the tenant for that purpose?—Very trifling; they were cotters on the property, and it was proposed to them to give up their present cottages and to take a small allotment on the edges of the bog, which they agreed to do, and they have built houses for themselves.

3156. Have they that bog rent-free?—For the first year.

3157. Only one year?—Only one year.

3158. Have they any lease?—None.

3159. And are they now improving that land without any certainty of tenure?—They have only a confidence in the good feeling of the landlord.

3159*. Can you inform the Committee the manner in which they have reclaimed this bog, or the measures they have taken for that purpose?—It is generally by spreading a little clay over the surface, and with the assistance of ashes and what manure they can scrape together; we also lend them some lime, and they mix all that together into a kind of compost, and that forms the soil.

3160. Is there any general system of drainage adopted?—Yes; we make the drains.

3161. What description of bog is it?—Generally it is the very worst description of bog.

3162. The red bog?—Yes.

3163. Then in general it does not burn red ashes?—No.

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3164. Will you state what general system of drainage is adopted?—It is under the Commissioners of Education, the school lands of Duncannon; they have allowed me to lay out a certain sum of the arrears due by the tenants in giving them work in making the drains in the bogs, and by that means I have brought the bog to a tolerable state of dryness; but it is not so good as it ought to be.

3164*. Then, in fact, you have brought the bog into a fit state of drainage to enable them to cultivate it?—Yes, it will be, I expect, in a certain time; at present it is not so good as it ought to be.

3165. If you had the means, have you any doubt that you might by proper drainage reclaim the whole of that bog?—There is no question of it.

3166. Can you state to the Committee at what expense it could be done?—If it were done by hired labour there is no doubt that it would be a very expensive thing; but if you do it by advancing such materials as are necessary to put the industry of the tenant into action, and enable him to get a return for his labour, it may be done at a very trifling expense. In general, improvements are begun by building houses and other buildings unsuitable to the poor circumstances of the inhabitants, and which they are not able to keep in repair. The good house ought to be the consequence of the improvement of the land, and the improvement of the circumstances of the occupiers thereby; increased comfort ought to be the fruits of industry. Where extensive draining or fencing must be done beyond the power of the individual settler, that may be done, and the interest of the sum laid out may be charged as rent; but no judicious improver under ordinary circumstances ought, in my opinion, to do more than prepare the land for the occupation of tenants.

3167. The Committee are desirous of knowing the amount of the pecuniary expense if you can state it?—I can only state it from recollection; but it is so very trifling in the mode I have adopted, that you will see at once it is an immaterial consideration.

3168. Then you presume that the tenantry reclaiming these bogs work at a lower rate of wages when each man works for himself than they would if they worked for an improving landlord?—Yes, he will work twice as much for himself as he will for his landlord.

3169. And at twice as cheap a rate?—He does it for his own benefit, as we only charge him for the original value of the allotment. If he makes it better he has the benefit of it for a certain time, and he trusts to the landlord to make him compensation by not charging him hereafter the full value of the land in its improved state. Thus he acquires the tenant right in a small holding, which is in itself considered a very valuable acquirement.

3170. Will you state the number of persons so allocated?—There are, I think, either 34 or 35 families allocated, and I think the entire expense of building the houses and the outgoings altogether amount to 150*l.*

3171. Will you state the pecuniary expense per acre of the drainage you performed in that bog?—It is not exactly on one spot where these people were allocated, nor was it in reference to their immediate holdings, that the drainage took place; they were allocated more upon the outskirts of the bog where there has been very slight outlay for drainage.

3172. Can you state to the Committee as nearly as possible the amount of pecuniary expenditure, at what rate per acre, where you did drain the bog?—It is not done so effectually as that it could give any information to the Committee. We have laid out about 300*l.* in making drains and forming roads through the place, and there is an extent of 800 or 900 acres, but the thing is not yet complete.

3173. Have you made use of the rail-road?—No, I had not the experience of seeing it used at that time. I have seen it now, when I have proposed to the Commissioners that something of that kind should be adopted. I think it is of more advantage to the making of roads than actually making the bog into soil, for I rather anticipate, in the course of a few years, that the property will be as valuable for turf bog, as fuel, as it would be in a reclaimed state, and therefore I should not, without considerable consideration, recommend an extensive outlay, in making it arable land, until I saw what it was likely to produce in the other condition; but the outskirts of the bog I think it is advisable to allocate these people upon, as I only proposed to them a loan of two guineas to assist in building their cottages, which are of mud; they are of the commonest description; but still they are a thriving and very contented population, and they acknowledge they were never so well off in their lives before.

3174. Are the Commissioners you spoke of the Commissioners of Erasmus Smith's

Smith's school?—I believe they are; they have jurisdiction there; the Primate is at their head.

3175. Are there any other bogs adjoining the land to which you have already referred?—None of very considerable extent.

3176. Are there any waste lands in these counties independent of the bog, to which you have referred?—Not in that immediate neighbourhood.

3177. Are there any waste lands capable of being reclaimed in the county of Armagh?—Yes, there are considerable tracts bordering on Lough Neagh, and near the Fews mountains, which are not brought into cultivation.

3178. Has not Mr. Brownlow reclaimed some bog land in that county?—He attempted to do it under the direction of Mr. Nimmo, the engineer, by embankment; but he has been unfortunate in that, for the Lough (Lough Neagh) rose to a great height, and overflowed it.

3179. To what do you attribute his failure?—It is quite clear that it was from the rising of Lough Neagh, which overflowed his embankment, and swept away a great part of his improvement. It destroyed his system of drainage, by pumping by steam-engine.

3180. Was the bank raised of a sufficient height?—It was considered so by Mr. Nimmo; but the fact is, that Lough Neagh is rising every year.

3181. Had a greater flood taken place that year than had occurred for many years before?—Yes, than had occurred for 20 years before.

3182. From what does the annual rise proceed?—The outlet is choking up gradually. There is but one outlet at Toome by the lower bar; and there are a variety of rivers carrying floods constantly into the Lough, so that the absorption of the surface is not equal to keep down the rise.

3183. Have they erected weirs upon the rivers?—There are eel weirs near Toome Bridge, which is to a certain degree an obstruction, and the bridges themselves; the foundations of them form a barrier against the flow of the water.

3184. Was it not supposed in regard to Mr. Brownlow's improvement, that the water rose from the ground, being on a lower level than Lough Neagh?—I saw the work in progress; a steam-engine overcame that; it did take place, and he had brought down the lake he was draining to a state of mud, in which state the engine could have no effect. It was a mere pumping engine. I always apprehended it would scarcely pay the expense of an engine constantly going to keep it dry, which would be necessary.

3185. In your opinion, would it be beneficial if tenants for life had the power of expending money for the reclaiming of those waste or bog lands, and of charging the inheritance with the amount of that expenditure; and if that is your opinion, under what circumstances would you recommend it?—It would be very difficult to say by what provisions the remainder-man might be secured against an injudicious outlay; otherwise the principle is good, and if generally adopted, not only by tenants for life but by all landed proprietors, and likewise extended to the inclosure of commons, &c. the most beneficial results would follow. It would not only be the means of giving immediate employment to a pauper population, but it would likewise correct, or, perhaps, remove the oppression and rack-rents of middle-men, by giving the tenant the alternative of being readily able to get a settlement elsewhere. Those who remained would also be benefited by being able to acquire an addition to their farms, and exorbitant rents would be checked by so much additional land being brought into the market; therefore in every view of the subject the whole agricultural population would be most materially benefited. Taking off the malt-tax, extinguishing tithes or any other burthen pressing on the land, is only a temporary relief to the occupier, while his present tenure lasts, at the termination of which, if the demand and supply continue relatively the same, the land being worth more by being relieved from these burthens, will be of course set at a higher rent, and the advantage goes to the landlord. The *only* way effectually to serve the occupier of land is to increase the supply by bringing more into cultivation, and thereby lessen the competition which will enable him to make a better bargain with the landlord.

3186. You have turned your attention very much to the cultivation of arable land, I believe?—A good deal.

3187. And also to green crops?—Yes.

3188. Have you been successful in introducing the system of green crops into Ireland?—I think more so than I ever could have expected, and it is spreading very much over a large surface in Ireland. I have sent agriculturists to a number of

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noblemen and large landed proprietors, who are following the system, and every where I find with success.

3189. Have you induced the poor people to adopt that?—Certainly; it is for the benefit of the poorer classes, and in fact it is one of those cases in which the poor people teach the rich; for the poorer they are, the more dependent they are on the landlord and the agent, and under their influence they will try an experiment, which a wealthy man who can pay his rent and is independent of his landlord, is not at first disposed to do; but seeing the advantage of it in their poorer neighbours they have come to be proselytes to the same system.

3190. How is it they introduce these green crops; is the clover after the wheat crop?—Yes; it is sown with the first grain crop after the manure has been applied.

3191. Will you state what is the practice you adopted respecting these green crops?—The advantage of green crops is evident, and has been insisted on by all agricultural writers. My exertions have merely been directed to devise some plan of inducing the small farmers to cultivate them, and that is done in this way. If a small farmer says, "I have not manure," I reply, "I will lend you a certain quantity of lime, which will supply the place of a certain quantity of manure; that manure which I thus enable you to spare, I will require you to lay out in the cultivation of turnips, or some moist food, for your cattle in winter. I will lend you clover-seed to sow with your oats or barley, or to harrow it in upon the graining wheat in the spring; and that is not only improving your wheat, but it cuts off the necessity of putting in a second crop of grain." It interposes between the two crops of grain, which is the most decided improvement, and of the most absolute necessity of any that can be introduced. By that means, you completely break off that practice, and that is the easiest improvement that can be introduced, for it is attended with no trouble; it is attended with no second labour: the seed is committed to the ground, if it is with a spring crop, with the same operation as sowing the seed; if it is with the winter crop, as wheat, it is done in the process of harrowing the crop in spring, which ought to be done for the advantage of the wheat crop, if no clover-seed was sown; and therefore that is an improvement that is easily introduced; and if you lend the seed, it is constantly successful, and by soiling the cattle in summer, such a quantity of manure is produced, as enables the small farmer to spare some for turnips.

3192. If that is not adopted, do not the poor people in Ireland suffer the land to remain idle for a certain space of time?—If that is not done, they are generally in such distress, that they sow successive crops of corn until the land is fit to bear nothing, and then it lies, as they say, "at rest," but is actually a dead weight; by this means the half of the land, or perhaps even less, is left to pay the rent of the whole, which may be said in itself to double the rent per acre. The unfortunate man, of course, gets into debt for the support of his family, his whole crop being very likely sold to make up the rent; he is obliged to buy on credit, and is charged far above market price. When the credit expires, he is forced to buy an additional quantity at an extravagant price, which he is to sell for what he can get, in order to pay the first bill; and this process being repeated once or twice, the poor man becomes so involved, that he loses all hope of recovering himself. Many instances of this kind have come to my knowledge, and the extent of the poor people's debts has been the greatest difficulty I have had to encounter, for as fast almost as I can improve their situation, their creditors extort their gains from them.

3193. The land left to rest is wholly unproductive?—Yes.

3194. I believe you have written a pamphlet on this subject, which explains your views?—Yes, and which condenses in a small compass almost every thing I have to say, and is to be had at Rodwell's, in Bond-street, or Ridgeway's, Piccadilly.

3195. Is there any deficiency of roads in your part of the country?—No; I think we have full as many as we ought to have, except that they are not laid out as they ought to be. In the road from Charlemont to Newry, which is the main communication with the sea for a great part of Tyrone, Monaghan, Fermanagh, and part of Derry, I believe also there are hills which rise, as well as I recollect, in some cases one foot in nine, ten and twelve feet. A Bill to place turnpikes on it is now in progress, but the tolls will never pay for improving the line, and as it is a road for the greater part of the North of Ireland, which is more interested than the county of Armagh, I doubt whether the grand jury will tax the county for the expense, though the great utility of the work is acknowledged. Great discontent exists

exists in the North of Ireland on account of all Government assistance of this sort going to the South and West. More capital would be put in motion immediately by a grant for part of the expense of this road, or for keeping Lough Neagh to the summer level, than will be brought into action by the outlay in the wild district near Killery Harbour for a century to come.

3196. Are the roads kept in good repair?—They were before the passing of the last Grand Jury Act in the most perfect state of repair in the barony for which I am interested, and at an expense which was not more than was the outlay, I think, 20 or 25 years ago; they were repaired at the same rate, or rather less, though I suppose we have five times as many roads.

3197. How do you account for their not now being continued in the same state of repair since the passing of the Grand Jury Act?—The trouble which the applicant is put to in travelling to post notices, and attending the surveyor. The different attendances that he has to go through is a very onerous imposition upon him, and after he has gone through all that, he is no further advanced in his labour than his neighbour who sits at his fireside; for he can come in and send his proposal, and at the sessions the cess-payers are obliged by their oath to give it to the man who has done nothing, if he proposes to do it sixpence less than the man who has taken all that trouble. My own overseers, when I blamed them for not sending in their plans, stated, "How can you ask me? I should have to walk 70 miles before I could post those notices, and then I am no better off than my neighbour who takes no trouble."

3198. Do you not, then, consider the present system very inefficient?—I do, most undoubtedly.

3199. And it requires alteration in your opinion?—It requires a total alteration.

3200. What alteration would you suggest?—The alteration I should suggest would be this. I think every person should view it in this light; that the grand jury ought to act for the county on the same plan that every individual contractor ought to act on for himself; and if I were the person to contract to keep the roads of the county in repair, the first step I should take would be to send a person I had sufficient confidence in (similar to the county engineer at present) to go over every road in the county, and to make an estimate of the quantity of material by the perch that was necessary to keep that road, considering the traffic that was upon it, in good order during the twelvemonth. I would make that report of the engineer to be the foundation of the grand jury presentment. We all know very nearly what the expense of a ton weight of broken stone is, and we could easily make out a rough estimate of what money would be required. Let that money be presented on the return of the engineer, and let us have deputies in each barony to see that the quantity of material is first laid down by the side of the road, and after inspection spread on the road. By that means, all kind of improper feeling between the engineer and the contractor for the work is totally cut off. At present the engineer is judge and jury; he not only directs the grand jury what terms to give, but he directs them in regard to paying for the work; and whether it is properly executed or not, all depends on his fiat; and though at present there may be no improper understanding between these parties, it is as clear to me as the sun at noon-day that it must come to that; that there will be cases of improper feeling between the man who executes the work and the man who inspects it, if he is to be both judge and jury throughout the business. It must come to that.

3201. In practice, do you think it happens invariably that the grand jury are guided by the opinion or advice of the engineer?—Nine times out of ten I should say they were

3202. Then they have a discretion?—They have a discretion.

3203. That is only as to the execution of the work; it is not as to the sum of money to be expended upon the repair?—When the county surveyor, upon his oath, says that such a sum of money is necessary for these repairs, there is no grand juryman, who is not a scientific man, who will take it upon himself to say, "I understand the subject better than the engineer who was bred to this." The county surveyor is appealed to, "Is that a proper sum to ask?" He says whether it is or is not; if he says it is too much, there is no man in the grand jury who will get up and risk his own opinion against the surveyor, and the thing is thrown out. I know that in my own barony the presentments sent in, in consequence of the trouble and vexation attending the mode of proceeding, have been all far beyond the sum which I had the work done for quite satisfactorily before; and the consequence is, that all

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the presentments almost have been thrown out, and the roads are going out of repair as fast as they can.

3204. The sum demanded was invariably larger than what the surveyor would give?—Yes, almost always.

3205. You state that the bog was in a state of reclamation in the property with which you are connected?—Yes.

3206. You anticipate that the tenants will be successful in reclaiming it?—Yes, I do, on their different allotments.

3207. Do you anticipate that they will do it profitably to themselves?—Undoubtedly.

3208. What remuneration do you expect they will have for their labour in reclaiming that land?—They will have their crops; they will have their crops at a cheaper rate than they could get them at on any other land, and they will have the power of obtaining a larger quantity; for instance, they may get five or six acres of land, suppose at 2*s.* an acre, and by lending them a few loads of lime, and assisting them likewise with the carriage of some clay, from which they can get a crop of potatoes, they can have that crop of potatoes much cheaper than they could have them in any adjoining land, that they could take for the same amount of rent.

3209. What do you consider the original value of this land previous to their being placed upon it?—You would scarcely say it was worth anything; from 1*s.* to 3*s.* or 4*s.* an acre.

3210. Of what value do you think it will be when reclaimed?—I think for some of the best of it, even already, you would get 10*s.* an acre, and it is better worth that than it was 3*s.* or 4*s.* when let three years ago.

3211. At what rate will you probably charge them?—I hold out to them that they should have half the profits; for instance, if the original taking was at 2*s.*, and they made it worth 10*s.* per acre, that is an advance of 8*s.* "You shall have one-half of that, or 4*s.*, which will bring the rent to you for 6*s.* an acre;" and they are perfectly satisfied.

3212. Does the fact of these people having reclaimed or made land that was worth 2*s.* worth 10*s.* per acre, prove to you that men with skill and capital could have beneficially reclaimed the same land?—I do not think a man with hired labour could have done it with profit to himself on the greater part of this land.

3213. Am I not right in my inference that this land has been reclaimed, from these people working for themselves at a much lower rate than they would work if hired by another?—They get their remuneration by getting their crop cheaper than they otherwise could, as I have stated, and by getting the tenant-right of a certain holding. The tenant-right of a holding is a property in itself, quite exclusive of the landlord; they get what they call a settlement, a residence; they are not wanderers on the face of the earth.

3214. Then do you not conceive it is a fair inference that the land derives its fertility, or its being worth 10*s.* instead of 2*s.* per acre, to the miserable and destitute situation of those people, who will at any rate accept of a holding, though in reclaiming the land they get a less remuneration for their labour than they would accept in the way of hire?—No doubt it is from competition for land that they cannot get a settlement elsewhere.

3215. Then would it not be better for these individuals to be placed upon land where their services would be better remunerated?—Unquestionably.

3216. Would not a man be better remunerated for laying out the same labour in America or Canada, than he is in those bogs of Ireland?—I cannot answer that, not being acquainted with the state of things in those countries.

3217. Do you not consider he would?—I cannot answer that; but I am sure, badly as he is accommodated in one of those mud cottages, he does not go through half the misery (at least I should feel it less) that they undergo in the hold of a vessel from Ireland to America.

3218. You have said that that land would on being reclaimed, the way the tenant leaves it, be worth 10*s.* an acre?—Part of it would, and part perhaps would be a little better.

3219. You have stated that, in your opinion, it would not be profitably reclaimed, except by the persons expecting to occupy it?—I think so.

3220. What do you found that opinion upon, as you state you have no correct estimate in your own mind as to what the expense would be?—I argue from this, that even farming in good land, a gentleman farmer finds a very unprofitable concern in most cases, and of course on bad land it must be ten times worse.

3221. Then

3221. Then your opinion is, that tillage generally does not pay a gentleman farmer in Ireland, and that is the ground upon which you put it?—Yes, it is.

3222. You spoke of competition for land; does that competition arise from over population in your part of the country?—I do not think it arises from over population generally throughout the kingdom; but in particular districts there is a paucity of land certainly.

3223. Have you, in your management of estates, found it necessary to remove a certain number of people and allocate them in other places?—Only in the Tyrone estates. I did there; but it was only removing them perhaps half a mile.

3224. Had you any difficulty in inducing them to remove?—No, indeed I cannot say that I had. It was still keeping them on the same property.

3225. Where the land is improved under the allotment system, what rise do you expect in the circumstances of the individuals placed upon it, or do you expect they are to remain small farmers with only the allotment?—Supposing this plan be followed up, as I dare say it will be, they would have the tenant-right of the land: half the increased value of the land would go into their own pockets, and of course their comforts would be extended. They are manufacturers also, and would of course, by having a cheap farm, obtain their subsistence more easily than they otherwise could. They must get more forward in life, and become more comfortable daily.

3226. Have you from experience found that they have purchased the interests of the persons holding next to them?—These are new allotments generally, and there has not been time for that result; but it will come to that, for there are always thriving people who are willing to get hold of any additional farm that lies adjoining to them, and will make great exertions; if they have not the money themselves, they borrow it for the purpose of getting an increase to their farm.

3227. Have you found those tenants who have been induced to follow the plan of green crops, have got larger farms from their neighbours?—I have found that several people have increased their farms; some have sold their own and purchased larger, and others are prepared to purchase as soon as they can get the opportunity; for it is not easily obtained, there is so much competition.

3228. Do you conceive that a small farmer could raise a crop or till his ground, or raise his produce at a cheaper rate than a larger one?—Certainly a small farmer can pay a higher rent than any large farmer can.

3229. And a small farmer does generally pay a higher rent?—I think he generally does, for that he is able to do it I have not the least doubt; that is, provided he is put on a proper plan of cultivation. If he gets the means of following a proper rotation of crops, he can beat a large farmer out of the field.

3230. Do you not conceive that the fact of a small farmer being under a higher rent is to be attributed to the competition for that sort of land among that class of people in Ireland?—Upon large estates, a well-managed estate in Ireland, I think generally the land is not set up to competition. The only way that can be brought fairly into view is in the amount of purchase money which these people give to one another for the tenant-right. They will give a sum equal to almost the fee-simple of the property, to get in under a certain landlord esteemed in the country, and adjacent to their family connexions. An English gentleman who has a property in the county of Wexford, who came to see Lord Gosford's estate, was anxious to get some of the tenants to settle on his property, and he desired me to offer a comfortable farm, with a house on it and every thing ready for immediate occupation, and a promise of any assistance the tenant might require in manure or money, in order to introduce the system of home-feeding there; but not a man would go. The same property would have sold (I mean the mere *tenant-right* without any lease) for 100*l.* or 120*l.* if it had been in the county of Armagh under as good a landlord.

3231. Have you ever turned your attention to the allotment system being adopted on a large scale by the Crown?—I have considered the question with reference to the experience I have had of it, and I think the Crown would make a profit by it if they held a valuation upon waste lands and gave tenures of it. They might either allot it out to the poor population at a rent fully equal to their outlay in the purchase and draining of it, if not greater, or they might, by giving long tenures or perpetuities, get people with capital, who would come and bring it into cultivation without costing the Government any expense; and I think the plan likely to succeed even better with Government if managed as I have pointed out, than with individuals; for the settlers would have more confidence in being secure as tenants to Government, than they would as tenants to individuals.

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3232. The plan has been suggested to the Committee of taking from persons at present possessed of waste lands a portion of their property, as a return for improving the rest of it by the Crown; what would you think of such a plan?—I should think it would be very advisable to get the land into the hands of any person who would give employment to the population by allotting it; there cannot be a doubt on that subject.

3233. But supposing yourself a proprietor of waste land, would you be willing to surrender a portion of it to the Crown to have the rest of it improved?—As the proprietors are situated at present, I think it would be a very judicious thing to do. As for myself, if I had the property I should be very glad to do it on my own account, for I think it is an outlay of money that would pay the best of any I know.

3234. Have you seen any improvements in waste lands in other parts of Ireland besides Tyrone?—I visited Mr. Featherstone's and Lord Clonbrock's very lately; they are carrying on pretty much the same system, but both of them are doing it at their own expense. The true plan is to supply the labouring population with what is necessary to put their industry into operation, and I am sure in that way it is the most profitable speculation a person can enter into.

3235. By loans?—Yes, which are regularly paid back.

3236. Do you find them regularly paid back?—I do.

3237. Will you explain the encouragements and advances that you make to the tenants to whom you allot a portion of bog or improvable land?—The assistance I give them depends on the nature of the soil in a considerable degree, but as a general measure my principal assistance is in lending them manure, as lime, bone dust, &c. and seeds.

3238. To what extent does your pecuniary encouragement proceed?—In the particular instance which I have alluded to, all the assistance I gave, I think, was two guineas for building each cottage, and if I saw them industrious I lent them a little more. The extra loan was to be repaid in one year, but the two guineas were not to be repaid except by seven instalments. Of the 150*l.* lent in that way I believe I am repaid about one-half, so that I am not now more than 70*l.* out of pocket on the allotment system.

3239. That is upon the cottage building, but there is also a pecuniary encouragement for lime and manure?—Lime and manure may generally come to 20*s.* to each, but that is repaid when they get the grain crop from the lime or clay, or whatever is lent to them, or when they get either one or two crops, according to circumstances, generally after the first crop of oats; they pay for the manure, and they keep that in a separate and distinct account from the instalment account.

3240. Then there are three funds, the cottage-building fund, the lime fund, and the seed fund?—Yes; but with respect to the seed fund I get credit from the seedsman, and they repay me in time to pay the seedsman. The landlord is not out of pocket.

3241. Would it not then require a very close looking after of the tenants to have the three funds cared for by them?—If there is some trouble attending it, the landlord is very well repaid, and the labour falls on the agent.

3242. In any Government plan allotment, or any great plan of allotment, where would you place that power?—There must be inspectors to preside over the general improvement of the district, and I would have under him an agriculturist, in the same way that I have an agriculturist under myself, and then the inspector would oversee the thing in the same way as a land agent oversees the estate. But I should mention, that from that allotment system I have now a well-secured rental coming in of between 50*l.* and 60*l.* a year, and I am not 70*l.* out of pocket of all the money that has been lent, without any other expense at all.

3243. How many acres have been allotted by you in the whole?—I should think there might be from 120 to 150 acres, or perhaps more. I am unprepared for this examination, and speak from recollection.

3244. How many acres are there generally in each allotment?—From four to six.

3245. Can you state how much it would cost a gentleman to reclaim that land?—I cannot state the exact expense; but I am sure he could not reclaim it with advantage by hired labour, except under very favourable circumstances, and even then he ought to let it to tenants as soon as possible, or grain it if practicable. I do not think it will repay cost of labouring it.

3246. How much do you think it would cost him per acre to do it?—I cannot state

state from recollection. There is the carriage of clay, lime and other things which I cannot give a satisfactory estimate of; they vary so much according to circumstances of carriage hire.

3247. Which do you consider most advantageous to the tenant, to give him a small portion, say two-and-a-half acres of good land, or seven acres of land which requires to be reclaimed?—I would rather give him the seven acres; for if he be an industrious man, I think he is better off with the seven acres which require to be reclaimed.

3248. Do you find that those tenants who upon an average get an allotment of five-and-a-half acres upon this bog, are or would be desirous to take more upon the same terms, if you had the power to give it to them?—They would be all anxious to take more; but I consider that the allotments which they have in general are sufficient for their present means.

3249. Is the following calculation of the loan of 150 *l.* to 35 tenants on 150 acres a correct one:—

4½ acres - -	£. –	9	– old value at 2*s.*
„ - - -	2	5	– new value at 10*s.*
„ - - -	1	7	– new rent at 6*s.* per acre?—

Yes, that is a perfectly correct calculation, upon the principle I laid down.

3250. Then the amount of profit will be as follows:—

	£. 1	7	– new rent.
	–	9	– old rent.
£.	–	18	– net profit to landlord on giving a loan of

4 *l.* 10*s.* to the tenant, or thereabouts?—Yes, and giving the land.

3251. He receives the rent too?—Yes, the landlord must be a sharer in the improvement of his estate. That is admitted on all hands, that the landlord ought to derive a profit from it.

3252. But he derives the whole of the benefit?—No, the tenant has the 4*s.* per acre abated during his further term, and has had the assistance free of interest; and I think the tenant is very well off, for if that value is calculated with the value of the tenant-right, you will find he will have realized a fair remuneration for his labour, at least more than I am aware of his being able to do in any other way: for example:

	£.	*s.*	*d.*
Four and a half acres, as above, at 9*s.* rent, will be worth, on an average of the last three years, 8*s.* per acre, viz. 36*s.* a year, being a profit of 27*s.* a year for three years, amounts to - - - - - - - - -	4	1	–
Supposing him then to get a 21 years' lease, he enjoys the land at a reduction of half the improved value, viz. 4*s.* per acre for 21 years - - - - - - - -	18	18	–
Tenant-right acquired at 4*l.* per acre, but would bring more	18	–	–
Profit to the settler free of interest - - £.	40	19	–

I think this is a fair remuneration, when it is considered he has had the profit of his crops and assisted besides by capital from his landlord, according to the plan I recommend. I do not see any thing but agriculture that can afford such remuneration, nor such constant employment; and it seems to me a great defect in the system of education provided for the working classes, that in no one case has there been hitherto any instruction afforded to the pupils upon that very point which is of the greatest importance to nine-tenths of them, viz. agriculture, by which they must hereafter earn their livelihood. I should wish to see some treatise of an intelligible nature addressed to the understanding upon the defects in the system now prevailing, and pointing out a better, put into the hands of the elder boys, with permission to take them home to read to their parents; and if this was followed up by having an allotment of a couple of acres of land made to each school, and an agricultural inspector to come round in order to point out the proper cultivation of it, and thus make every school allotment a model farm; by having this arrangement, the agriculturist could call the parents of the children together, and talk over the plan recommended, answer the objections stated, and point out the advantages upon the model farm, and thereby make the whole clear to the dullest apprehension. In this

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way great advance might be made in the spread of agricultural information at little or no expense; one book is as cheap as another; the schoolmaster would be glad to pay the rent of the land, and all the extra expense would be the expense of an agriculturist who might attend to 20 or 30 schools if not too remote. This plan would recommend the building school-houses in every district, as every landlord would be anxious to have such a model farm upon his estate. Boys would take up the new ideas much quicker than men whose prejudices were confirmed; and I should anticipate the very best possible effects from it. At all events the plan is the very cheapest mode of trying the experiment, and if found not to answer, there is nothing more to be done except discharge the agriculturists, and matters return to their former state. Should these suggestions, and those contained in the two pamphlets I have alluded to, be fully acted on, I think the pauper population in both kingdoms would be enabled to support themselves in comfort and independence, and unless they are taught how to do this the entire wealth of the empire will in the course of some time not be able to do it, in my opinion.

Veneris, 26° die Junii, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

George Lewis Smyth, Esq. called; and Examined.

G. L. Smyth, Esq.
26 June 1835.

3253. WHERE do you reside at present?—St. Paul's Terrace, Camden Town.

3254. Have you any suggestions to make with respect to any Public Works in Ireland?—Yes; I would submit, with every deference to this Committee, that very considerable benefit would be likely to arise, should you think fit to recommend a grant of public money for the purpose of improving the navigation of the River Suir; and I beg to submit that these advantages would not apply solely to the immediate neighbourhood of Carrick-on-Suir, but also to the very extensive populous section of the county of Clare and Waterford, and all the mercantile interests of the town of Clonmel. According to the common statement, Suir is navigable for sloops as far as Carrick, but in point of fact ships of a much greater burthen have gone there, and they would be enabled to go there much more frequently if this improvement was made; in fact, vessels of 300 tons burthen might load and unload at the quay at Carrick, if the bed of rocks which intersect the river a little below Carrick was blasted. This fact has had the effect of course of inducing the merchants and landed proprietors in the neighbourhood to apply to Government repeatedly on the subject; and knowing that Government some years back directed a surveyor to go to the spot, and see what could be done, I applied at the office of Public Works, hoping that I should there find a report of the surveyor, who I understood was Mr. Killaloe. Mr. Phillips, the secretary of the Board of Works, stated, however, that he had no documents of that sort, that in fact the Irish Board of Works were not in the habit of transmitting copies of any reports of the surveyors whom they had employed to this country; but he suggested that I should see Lord Duncannon, who could probably give me some information on the subject. Lord Duncannon saw me, and his Lordship's statement fully confirmed those representations that had been made to me by merchants and others interested in the subject.

3255. To what extent is the River Suir navigable at present?—At present it is navigable for sloops up to Carrick.

3256. How many miles is that?—By land it is about 33 miles from Waterford.

3257. What is the length of the river?—I cannot pretend to say; perhaps it would be about 20 miles.

3258. Can you state the probable expense of removing the obstruction to which they have alluded?—I can. It appears that Mr. Killaloe, the surveyor, estimated the expense of blasting those rocks at 1,200*l.* I should mention, as connected with the question first asked me, that though the Suir is navigable up to Carrick, and if these rocks were removed it would be navigable for vessels of 300 tons, that the commerce of Clonmel is principally managed by transmitting their goods down through large barges by Carrick from Waterford. The river is navigable for these barges at spring-tides only; but if the river was deepened in some parts, these barges,

barges, and, indeed, I believe barges of a somewhat larger tonnage, might pass at all times.

3259. To where?—From Waterford to Clonmel up and down.

3260. Now how does it happen that this obstruction, which could be removed at so small an expenditure, has not been removed long since?—The only answer I can give to that question is the answer that Government has returned to every memorial sent in, that they have no money to give.

3261. How does it happen that the people of the country, the merchants of Carrick and Waterford, have not done it themselves?—The merchants of Waterford have no interest in it.

3262. They have considerable?—But their interest is the other way; all the shipping of Carrick and Clonmel is managed at Waterford. If you give to the Carrick and Clonmel merchants facilities for shipping their goods at Carrick, that would be so much taken away from Waterford, which is what they ask at present.

3263. Then you cannot expect, of course, any assistance from the merchants of Waterford, but you might from the merchants of Carrick and Clonmel?—Yes, certainly, I should like to be allowed to state that the principal portion of the provision trade from the port of Waterford, is carried on in vessels of no greater burthen than those I have mentioned, namely, vessels of 300 tons and under.

3264. Do you mean to inform us that 1,200*l.* would be sufficient to make the river navigable from Clonmel to Carrick?—No.

3265. What would be the probable expense of effectuating that object?—The merchants of Clonmel are desirous of course of having those shallows which have been alluded to removed. They are also anxious (and they are a very business-like body of men, consisting of quakers), they are anxious that this work should be concluded in a manner permanently serviceable. Last year they sent a surveyor, for the purpose of considering how far a basin or dock might be constructed with great facility in the very neighbourhood of these rocks, which would have the effect of enabling them to make a free port of Carrick, as Government attempted to do some three or four years ago at their earnest solicitation. In the immediate neighbourhood of this bed of rocks, of which I have spoken, the turning of the river forms some islands, and these islands are passable when the tide is in by vessels of a large tonnage; in point of fact, there is almost a sort of natural dock, but they are not properly protected, so that a vessel would lie in them; and the merchants of Clonmel say, "build us brick-work or stone-work here, so as to form docks where they have been naturally hollowed out;" and they suggested this might be done for about 3,000*l.*; so that you have first, for blasting the rocks, 1,200*l.*; for forming this basin or dock there, into which the tide would flow and ebb naturally, 3,000*l.*; and I believe about 3,000*l.* for deepening the river between Carrick and Clonmel, in order to make it navigable for barges at all tides, when it is only navigable now at spring-tides; so that, altogether, about 7,000*l.* would be requisite.

3266. For so desirable an object is it not possible to have that sum raised in the county?—I know of no source by which it could possibly be raised, except by the formation of a company; if a company were formed, I do suppose the money might be got, and probably Parliament might think fit in such a case to give the company the privilege of levying some duty on the tonnage of vessels, availing themselves of these improvements.

3267. Would it be a profitable undertaking?—I have no doubt it would; a petition was forwarded from Carrick, and placed in the hands of Mr. Sheil, in order that he might present it to The House, that it might be referred to this Committee; that petition contains an estimate of the tonnage passing the river; the tonnage per annum of Clonmel and Carrick down to Waterford; and it estimates that at the charge of 6*d.* per ton, a sum would be sure to be raised sufficient to pay the interest upon the money required for this improvement, and for the purpose of forming a sinking fund to repay any advance which Government might deem proper to make to the parties undertaking this object.

3268. Can you put in that estimate?—The estimate forms part of the petition entrusted to Mr. Sheil for presentation to The House.

3269. How many tons of shipping are there?—I cannot pretend to say; the only fact I can state with respect to that is, that the exports of Carrick alone are estimated at 240,000*l.* per annum, and they were some years ago estimated at as much as 360,000*l.*; the trade therefore has fallen off, while the population has increased. The present trade of Cork and Clonmel is not exclusively the provision trade; as far as that is concerned, the quicker the goods can be passed to

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England of course the better. The Dutch merchant gets a better price than the Irishman, principally because he sends his goods in a fresher state; in consequence of this impediment in the navigation of the Suir, the merchants of Clonmel cannot do it as quick, because his goods have to undergo a double loading. A few years ago Lord Duncannon, at his own expense, built a quay at Fiddown, that is a few miles below Carrick-on-Suir, and the effect of that convenience to the navigation was, to bring in a single year 126 ships, with their cargoes, to Fiddown.

Martin O'Mailley, Esquire, called in; and Examined.

M. O'Mailley, Esq.

3270. WHEN in Ireland, where do you reside?—In the large Isle of Arran, on the western coast of Ireland.

3271. Are there any harbours in that island?—There is but one harbour, a tide harbour, a harbour that dries each tide; there has been a fishing-pier erected there by the order of the Board.

3272. By the Board of Works?—No; it was by order of the Fishery Board.

3273. How long ago?—It was commenced in the year 1822.

3274. Does that island stand in need of any further pier or quays being erected for the purpose of fishing?—No; not for the purpose of fishing, but for the shelter of vessels, it is wanted very much. As to that harbour, I must premise, that although the pier has been erected at a very considerable expense, there is a very narrow channel entering into it; it has deep water, but it is very narrow. There are two rocks which are under water at half flood and half ebb, which renders the passage very bad; it is so narrow that one vessel coming in and one going out, could not have room to pass each other, and in tacking or beating in there is not room; the passage would require to be widened.

3275. Could the passage be widened, and at what expense?—I have heard it said that one person offered to take the contract for 300*l.*

3276. How does it happen that it has not been done by the gentlemen, the landed proprietors of the country?—I cannot say.

3277. I believe they all belong to one gentleman?—Yes.

3278. Would it not be a great public benefit if this obstruction was removed, and this harbour made?—An infinite benefit; in the winter season vessels outward bound and inward bound to Galway come to anchor in the roadstead, which is a very wild place.

3279. Would it not be of great importance to the English trade; does it not lie in the direct line of way to America, from England and Cork?—It does not.

3280. Are not vessels frequently driven in on that shore?—Outward bound ships to the West Indies on the Liverpool trade and to America are; the Irish Channel vessels, when they clear Cape Clear stand often to the northward, and vessels when they are forced in that way do not wish to run down to Galway, which is 30 miles distant inland, and they often come to anchor in Costello Bay or in the roadstead of Arran, but Costello Bay is the much safest place.

3281. Is there a harbour at Costello?—Yes; and it is a very excellent roadstead; it is the same as if you were in a lake when you get into it.

3282. Is there a considerable distance between Arran and Costello?—The distance from anchorage to anchorage is about 12 miles.

3283. Might not a great deal of injury be done if a vessel is obliged to go 12 miles?—There is no danger between the roadstead of Arran and Costello; and she runs that distance in an open sea for the best harbour. I was going to mention that as to the necessity of clearing the passage into the pier, there is an immense bar at the entrance of the roadstead of Arran, that causes a sea which brings the vessels up to their anchors nearly, and tears away every thing; therefore, if the passage was cleared into Arran pier, vessels of 300 and 400 tons could go and lie alongside the present quay, where there is from 18 to 19 feet of water at spring-tides.

3284. Are you acquainted with the small Island of Arran?—Yes.

3285. Do you know of a lake on the south side of that small island?—I do; but it is on the east side of the island.

3286. Would it cost much to open a passage between the sea and that place?—I dare say it would; I know that I and some scientific men went to look at it; I do not exactly recollect who they were, but I have been more than once there; and I think if the lake was opened it would be the finest harbour in His Majesty's dominions. There could not be a finer harbour; the vessels would lie as safe in it as in any of the canal docks in Dublin.

3287. Now might vessels at all times reach that harbour?—Yes; it is at the mouth

mouth of the best entrance into the Bay of Galway; what is commonly called the South Sound.

3288. Can you tell us the distance between that lake and the sea?—The distance is not more than 300 or 400 yards, at an elevation of 16 or 18 feet.

3289. Do vessels from America often touch at the Isles of Arran?—Yes; the outward bound vessels.

3290. Do they seek shelter there?—Frequently I have seen them waiting for a fair wind or fine weather.

3291. If this harbour was made commodious by the removal of these rocks, would there be any difficulty for vessels to get out of the harbour at all times?—No; they could get out at all times of tide.

3292. Do you know the difference between that and the level of the sea?—I think it can be very little, because there is a subterraneous passage between the lake and the sea, for it rises with the tide a couple of feet; it rises and falls a little perceptibly, a couple of feet.

3293. Would vessels experience much difficulty in reaching this harbour from the port of Galway?—It would be much easier reached than the harbour in the large Isle of Arran.

3294. Vessels cannot leave Galway every state of wind and tide at present, but if this were cut they could do so?—Yes.

3295. How many vessels would it accommodate?—It would accommodate 500 ships of any size.

3296. This lake?—Yes; it would accommodate more ships than we could ever expect to come there.

3297. Then it would be a most convenient port in the passage to America?—Yes; the best on the western coast.

3298. Are you acquainted with the western coast of Ireland?—Not further to the southward than the Blaskets, nor further to the northward than Broadhaven. There is always from 10 to 12 fathoms of water in that lake.

3299. Are you acquainted with the passage of Ballydangan?—I am.

3300. Could not the obstructions there be easily removed?—Yes.

3301. At a very little cost?—Yes.

3302. And it would be of infinite benefit?—Yes.

3303. How do you account for its not being removed long since?—It has been talked of being removed this long time; there have been attempts to make subscriptions and putting a toll on the boats passing there.

3304. Are not lives often lost there?—There are very often lives and property both lost.

3305. Are there not from 100 to 150 boats under the necessity of making a circuitous voyage and exposing themselves to a full sea, when they might pass safely if this improvement was made?—I should say 500 boats on the average every day in the year, that is averaging the summer season; there are 50, at least, laden boats pass through that place every day in the year.

3306. At a certain state of the tide now they find it impossible to pass?—Yes, the current runs so rapidly, that the boats all congregate together above it. The laden boats come down so as to endeavour to get there by a slack tide, for if they are taken by the current, and there is not a fair wind or a stiff breeze, they lose all power of steerage, and are at the mercy of the current, are often driven on the rocks, and injured very much, lose their cargoes, and perhaps they even lose their lives.

3307. If the passage was clear, would there be a facility to the trade of Galway?—It would be of infinite benefit to the town of Galway, and to the interior of the country, as well as to the county of Clare, and Isles of Arran, in the way of manure, for it is on that part of the coast that the sea-weed is found most plentiful, and turf fuel most abundant.

3308. Would it affect the fisheries at all?—It would benefit the fishery infinitely.

3309. What are the pursuits of the inhabitants of the Isle of Arran?—They are partly agriculturists and partly fishermen.

3310. Do they ever go out into the ocean?—Yes, I have known them to go 30 or 40 miles into the main sea.

3311. Do they reach a fishing bank in that neighbourhood?—There is a bank in the neighbourhood, about 25 or 30 miles off the land, where they catch the fish called Glassing.

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3312. Turbot is taken there in great quantities?—Not as far out as that.

3313. Are their boats of sufficient size to enable them to reach this bank?—The boats are of the same description as those of the fishermen of Galway; I have gone out myself in boats of that description.

3314. Are they sufficiently large for the purpose?—I do not think they are.

3315. In the small Isle of Arran, are there any fishery piers?—None; it would be impossible to build them.

3316. Why?—In consequence of the heavy sea, except the opening of the lake.

3317. How do they manage their boats; where do they keep their boats when they have done fishing?—They have relinquished boats in the island, in consequence of the want of a harbour; they are obliged now to have recourse to a kind of canal, which they take up into the island; they had boats, but they found them very troublesome; they were obliged to haul them up on the green ground.

3318. Has the potato crop failed in the Isle of Arran last year or this?—The crop was pretty good last year; an average one, I have heard.

3319. Would the clearing of the passage of Ballydangan benefit the fisheries?—It would, inasmuch as the great herring fishery on the coast of Galway begins in the latter end of January, February and March, when the sea runs amazing high on that coast; it is a very large district where the herrings generally come in first, and a boat loaded with herrings cannot face round the headlands to go to market to Galway; a cargo of herrings are so liable to shift, they often lose a cargo, and they perish for want of salt; whereas, if this passage was opened, they could go down to Galway when they could not attempt it otherwise.

3320. That would apply to such herrings as were caught in Kilkeran Bay?—No, not at all; it would apply to the whole western district of Connemara.

3321. Do vessels experience any difficulty in leaving the port of Galway in a south-west wind?—It is a foul wind out of the bay of Galway.

3322. Can they beat out?—Yes, any vessel can beat out, and when the weather is moderate, all vessels do beat out with a south-west wind.

3323. Are there any bays in Connemara that afford shelter to large vessels navigating the bay of Galway?—Yes, a number; there is first Costello Bay, which is nearest to Galway.

3324. Is that safe for vessels of any description?—I have seen vessels of 800 tons lying there; I have seen a 22-gun ship lying there, and a West Indiaman of 700 or 800 tons. The next bay is what we call Great Man's Bay, which is not so good, because there are shoals at the entrance of it; you cannot go out at low water. These are the only bays to the eastward of Goldenhead, on the Connemara side. There is to the northward of Goldenhead a bay called Casheen, where vessels of 500 or 600 tons can ride with great safety. Higher up there is Kilkaino Bay, which is land-locked entirely, the same as a basin, and very deep water.

3325. Then you do not consider that safety harbours are required in the bay of Galway?—Nothing more than piers; there are natural safety harbours, but for the benefit of the fishery, the piers would be very requisite.

3326. Wherever there is not a natural shelter the harbours would be useful?—Yes; in the two Islands of Arran piers would be of great benefit, and in the other harbour of Costello, on the western side.

3327. Do you know Bertruckbee Bay?—I do.

3328. Is that a safe harbour?—It is a very fine harbour.

3329. Do you know Roundstown Bay?—Yes.

3330. Is that a good harbour?—Yes, and the pier on the north side would require to be finished.

3331. Do you know the place called the Straddle?—I do.

3332. Is that safe?—It would require to be cleared.

3333. Could it be cleared?—Yes, at a very trifling expense.

3334. Would that facilitate the trade of Galway?—Yes, very much.

3335. Would it cost much to clear the Straddle?—No, not a great deal.

3336. We should like to know whether there is any other suggestion you have to offer?—Nothing would benefit the whole coast of Connemara more than the coast road laid down by Mr. Nimmo; it would be of the most material benefit to the whole country.

3337. Would it be of public importance to have a safety harbour at Liskanor, in the county of Clare?—Yes, of great importance.

Mercurii, 19° *die Augusti*, 1835.

A. H. LYNCH, ESQUIRE, IN THE CHAIR.

R. M. O'Ferrall, Esq. a Member of the House, was Examined as follows:

R. M. O'Ferrall, Esq. M. P.

19 August 1835.

3338. YOU are a member of the grand jury of the county of Kildare, are you not?—Yes.

3339. Have you any communication to make to the Committee respecting the evidence given by Colonel Burgoyne, of the Board of Works, in Ireland, as to a useful road being stopped by the refusal of the grand jury of the county of Kildare to make a presentment?—I find at page 8 of the First Report of this Committee, under the head "As to the controlling powers of the Board of Works," an extract from the evidence of Colonel Burgoyne, Question 543; he is asked, "Can you suggest any scheme by which, when one party proposes to make a part of a general line of communication, as far as it passes through that county, that an adjoining county could be compelled to continue such line through its territory?" The answer is, "With regard to roads, the only way it could be done is, by a commission appointed by Government; Government officers and gentlemen of a different part of the country would perhaps be most satisfactory." Question 544 is, "Can you mention any instance within your own knowledge where such a provision as has been now suggested to you would be most desirable?" The answer is, "I can mention an instance where a road has been defeated for want of such a power. The Blessington turnpike trust has power to go to Carlow by a line which would be very advantageous to the country; but to carry it into execution it is necessary to pass through a small portion of the county of Kildare, whose grand jury have constantly refused to allow it, though only one shilling presentment was asked for; the consequence is, that a very improved communication from Dublin to Waterford, saving seven miles, is defeated. There is another case, where the county of Mayo has refused to carry on a great leading line of road that would be very advantageous to the country in general, and which is already perfected up to the frontiers of that county." On reading this evidence, I was convinced that Colonel Burgoyne was mistaken, and feeling that it was right to correct a statement so injurious to the character of the gentlemen of the county which I represent, I wrote to Colonel Burgoyne; the following is an extract from my letter, and from his reply to it: "As I differ with you on the facts stated in your answer to Query 544, before the Committee on Public Works, I am anxious fully to understand the extent of your meaning. The Blessington and Baltinglass trust ends at Grainy in Kildare; do you mean to convey that if it were continued by Burton Hall, between Palantine town and the present turnpike road which passes through Oak Park, *that seven miles* could be saved between Dublin and Waterford?" Colonel Burgoyne answers, "With regard to the case I quoted, having reference to the county of Kildare, I can only have a knowledge of it from reports made to me; but I still consider it one quite in point, even after your statements, which must be correct. I was certainly *in error* in mixing up with the presentment the possibility of saving by the Baltinglass line seven miles in the distance between Dublin and Waterford, because I now recollect that it does not influence that point; but in principle it is the same, as the line for which the shilling presentment has been refused, would shorten the road to Carlow by, I believe, one mile, as regards that line, and two, as compared with the old road, and, to all appearance, be a useful measure generally for the public accommodation; and although you may know of reasons why the presentment may have been properly refused, it was, as I will contend, a case for inquiry and explanation." If Colonel Burgoyne had chosen to make inquiry before he gave evidence, he would have discovered his error; and I have noticed it, from the apprehension that some persons desired to supersede the powers of grand juries, and transfer them to the Board of Works, or to give the Board of Works controlling or discretionary powers. I would most strongly deprecate any such interference, which would justly offend every proprietor and rate-payer in the country.

R. M. O'Ferrall, Esq. M. P.

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3340. Why was it the grand jury refused the presentment, by which the saving of the two miles would be gained?—The whole circumstances of this road came frequently before the grand jury of the county of Kildare; they examined the engineer of the road, and other parties interested, and they conceived that it was not desirable to carry two roads in the same direction, within a very short distance of each other, in some parts not more than a quarter of a mile, whereas the same advantage of the saving of distance could be attained by turning the Blessington line into the old road in the neighbourhood of Castledermot. I state this as also the opinion of a person deeply interested in shortening the distance; namely, that of an extensive coach proprietor, who runs coaches from Dublin to Carlow and Waterford. It was also stated before the grand jury, that the object in carrying the Blessington line in the direction alluded to by Colonel Burgoyne, was for the purpose of closing that part of the present turnpike road which passes between Colonel Bruin's lawn and deer-park. The majority of the grand jury who opposed this line was composed of gentlemen from a remote part of the county of Kildare, having no interest whatever in the matter.

3341. Have they carried the line to the bounds of the county, and does it stop there?—It does not stop at the bounds of the county.

3342. Would you give any compulsory power over grand juries in the event of one county carrying a road to the nearing of the next county?—I think it would be desirable that, on a representation being made to Government, disinterested persons should be appointed to take evidence, who should also have power to decide what portion of the expense should be imposed upon a particular county, which was not likely to derive much benefit from the line of road; but in the present case no such power was necessary; the grand jury exercised a sound discretion, and defeated what I considered to be a job.

3343. Are there any alterations in the grand jury system which you would be prepared to suggest at present?—I think the whole Act requires to be amended.

3344. What have you found to be the operation of the Act that passed the last Session, giving the Board of Works the power to repair mail-roads in certain cases?—I think it objectionable to give any such power to the Board of Works, as I am not generally aware that grand juries have so far neglected their duty as to render the continuance of such a power justifiable. The Act expires next year, and has already imposed heavy charges on counties.

3345. As the Act stands at present, it is only an alternative in case the counties neglect to repair the roads, is it not?—The Grand Jury Act, which passed two years go, is so defective in most of its provisions, that the presentments at the two last assizes, in every county with which I am acquainted, have almost invariably been informal; and that Act was passed as a temporary Act, as I am informed, merely to keep the mail-roads in repair. It was not passed to remedy the neglect of grand jurors.

3346. Have you seen statements in the evidence of Colonel Burgoyne with respect to the alleged failure of the Act that you brought in, intituled, "An Act to enable landed Proprietors to sink and embank rivers;" do you concur in the reasons which are there stated as causes of its failure?—I find Colonel Burgoyne states in his evidence, at Question 598, that it has not been acted on. I am informed that the part of the Act which gives a power to grand juries to present has been acted on. He is also asked at Question 600, "To what cause do you attribute its not being brought into operation?" He states, "I really do not know to what cause to attribute it. Mr. M. O'Ferrall himself commenced acting upon it, for the improvement of one of his own bogs; but I believe he has not as yet persevered." Colonel Burgoyne is again incorrect; the Act is not applicable in any way to the improvement of bogs. In the year 1833 I applied to the Board of Works to name an engineer to inspect a river which I thought might be improved, and a considerable quantity of land recovered from flood. Colonel Burgoyne named an engineer, who visited the river, and made me a favourable report on it. I directed him to have the levels taken, and to comply with the terms of the Act as far as he was concerned as an engineer. I was then obliged to come to England, and I heard nothing more of the engineer till I was informed that he had gone to America. On that occasion my effort to carry the Act into effect was defeated, and certainly not through any defect in the Act.

3347. To what cause do you ascribe its not having been brought into more general operation than it appears to have been?—I think the public have generally been alarmed at the liabilities of individuals; if they commenced to carry the Act into operation a considerable expense must be incurred for surveys, which would all fall upon a few persons, if the commission happened to be refused by the Lord Lieutenant.

3348. Would you see any objection to giving the Board of Public Works the power vested by this Act in the undertakers?—From what I have seen, I would be cautious in giving powers to the Board of Works, unless very strictly defined. I think it would be desirable that the Board of Works should be entrusted with giving an opinion upon works which might be beneficially undertaken, and that if the proprietors consented to carry them into effect, that then the powers of the Act should be transferred to the Board of Works, with the consent of the proprietors, but not otherwise.

3349. When you say the proprietors, you mean a certain proportion of them, two-thirds or a half, do you not?—I mean the proportion that is specified in the Act.

3350. Do you not think that any work executed by a body like the Board of Works, would be much more expensively executed than if it were done by individuals, whose ultimate profit would depend upon the economy which they observed in the execution of the works?—I did not mean that the Board of Works should have the power to conduct the works themselves; what I meant was that the Board of Works should have the power to contract with individuals to carry the work into effect, and that the security which the Act requires the proprietors to give, should then be given by the contractors, and that they should stand in the place of the proprietors.

3351. What advantage do you expect to arise from the circumstance of the Board of Works being placed in the situation of the proprietors in the execution of those works?—It is almost impossible to get country gentlemen to attend to minute details on which the success of a public work depends.

3352. If country gentlemen were to undertake a work of this kind, it would be under the direction of some engineer to direct it, would it not?—No doubt it would.

3353. Would not the Board of Works require the security from proprietors before they undertook a work, or would they not require that the profit likely to arise from the works should be so evident, that contractors would be found as well as the Board of Works, willing to undertake the execution of it?—I have already stated, I did not contemplate that the Board of Works were to be contractors, or to execute the work; I think that a board of engineers are better judges of what works are likely to be profitable than private individuals, and they are also persons better qualified to judge of contractors than any country gentlemen could be.

3354. At present, the company of undertakers have power under the Bill to borrow capital from the Board of Works, have they not?—Yes.

3355. They are obliged to give a great deal of collateral security, which perhaps throws impediments in the way of their borrowing; now supposing the landed proprietors were able to give the security of the lands themselves alone, do you not think that a considerable facility would be afforded to the bringing the Act into operation?—I think the suggestion would be much preferable to the clause in the Act. The Bill was so much opposed, both in the House of Commons and in the House of Lords, that I was obliged to adopt many provisions which I disapproved of at the time, and which experience has since convinced me are some of the greatest impediments to the successful operation of the Act.

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MAPS:

No. 1.—MAP of the *British* Empire, exhibiting the most level, the shortest and least expensive Line of Railroad across Ireland, from Dublin to Galway; showing also the direct Line across Ireland, taken from Liverpool to St. John's, in America, on an Arc of the Sphere. By *William Bald*, C. E.

No. 2.—MAP, showing *St. John's*, in Newfoundland, in America, *Ireland* and *England*, the straight Lines on a Sphere across the Atlantic Ocean. By *William Bald*, C. E.

No. 3.—A SURVEY of part of the County of *Roscommon*, showing the Course of the proposed Canal between Lough Gara and the River Shannon, near Carnadoe Bridge. By *Charles Tarrant*, C. E.

APPENDIX.

Appendix, No. 1.

PAPERS delivered in to the Committee by Mr. *Mahony*.

(No. 1.)

£. 100, at £. 3 per Cent. Interest, and £. 2 per Cent. Sinking Fund.

Year	£.	£. s. d.
1st	5	– –
2d	98	4 18 9½
3d	96	4 17 7
4th	94	4 16 4¾
5th	92	4 15 2¼
6th	90	4 14 –
7th	88	4 12 9½
8th	86	4 11 7
9th	84	4 10 4¾
10th	82	4 9 2¼
11th	80	4 8 –
12th	78	4 6 9½
13th	76	4 5 7
14th	74	4 4 4¾
15th	72	4 3 2¼
16th	70	4 2 –
17th	68	4 – 9½
18th	66	3 19 7
19th	64	3 18 4¾
20th	62	3 17 2¼
21st	60	3 16 –
22d	58	3 14 9½
23d	56	3 13 7
24th	54	3 12 4¾
25th	52	3 11 2¼

Year	£.	£. s. d.
26th	50	3 10 –
27th	48	3 8 9½
28th	46	3 7 7
29th	44	3 6 4¾
30th	42	3 5 2¼
31st	40	3 4 –
32d	38	3 2 9½
33d	36	3 1 7
34th	34	3 – 4¾
35th	32	2 19 2¼
36th	30	2 18 –
37th	28	2 16 9½
38th	26	2 15 7
39th	24	2 14 4¾
40th	22	2 13 2¼
41st	20	2 12 –
42d	18	2 10 9½
43d	16	2 9 7
44th	14	2 8 4¾
45th	12	2 7 2¼
46th	10	2 6 –
47th	8	2 4 9½
48th	6	2 3 7
49th	4	2 2 4¾
50th	2	2 1 2¼

(No. 2.)

Within how many Years will £. 100, at £. 3 per Cent. Interest, be discharged by an Annual Payment of £. 5?——Answer, 31 Years.

Year		£. s. d.	£. s. d.
		100 – –	
	Interest	3 – –	
1st		103 – –	
	Deduct	5 – –	
		98 – –	98 – –
	Interest	2 18 9½	
2d		100 18 9½	
	Deduct	5 – –	
		95 18 9½	95 18 9½
	Interest	2 17 6½	
3d		98 16 4	
	Deduct	5 – –	
		93 16 4	93 16 4
	Interest	2 16 3½	
4th		96 12 7½	
	Deduct	5 – –	
		91 12 7½	91 12 7½
	Interest	2 14 11½	
5th		94 7 7	
	Deduct	5 – –	
		89 7 7	89 7 7

Year		£. s. d.	£. s. d.
		89 7 7	
	Interest	2 13 7¾	
6th		92 1 2¾	
	Deduct	5 – –	
		87 1 2¾	87 1 2¾
	Interest	2 12 2½	
7th		89 13 5¼	
	Deduct	5 – –	
		84 13 5¼	84 13 5¼
	Interest	2 10 9¼	
8th		87 4 2½	
	Deduct	5 – –	
		82 4 2½	82 4 2½
	Interest	2 9 3½	
9th		84 13 6	
	Deduct	5 – –	
		79 13 6	79 13 6
	Interest	2 7 9½	
10th		82 1 3	
	Deduct	5 – –	
		77 1 3½	77 1 3½

(continued.)

(No. 2.)—*continued.*

Year		£.	s.	d.	£.	s.	d.
		77	1	3½			
	Interest -	2	6	2¼			
11th	- - -	79	7	5¾			
	Deduct -	5	–	–			
		74	7	5¾	74	7	5¾
	Interest -	2	4	7¼			
12th	- - -	76	12	1			
	Deduct -	5	–	–			
		71	12	1	71	12	1
	Interest -	2	2	11¼			
13th	- - -	73	15	–¼			
	Deduct -	5	–	–			
		68	15	–¼	68	15	–¼
	Interest -	2	1	2¾			
14th	- - -	70	16	3			
	Deduct -	5	–	–			
		65	16	3	65	16	3
	Interest -	1	19	5½			
15th	- - -	67	15	8½			
	Deduct -	5	–	–			
		62	15	8½	62	15	8½
	Interest -	1	17	7¾			
16th	- - -	64	13	4			
	Deduct -	5	–	–			
		59	13	4	59	13	4
	Interest -	1	15	9¼			
17th	- - -	61	9	1¼			
	Deduct -	5	–	–			
		56	9	1¼	56	9	1¼
	Interest -	1	13	10½			
18th	- - -	58	2	11¾			
	Deduct -	5	–	–			
		53	2	11¾	53	2	11¾
	Interest -	1	11	10½			
19th	- - -	54	14	10¼			
	Deduct -	5	–	–			
		49	14	10¼	49	14	10¼
	Interest -	1	9	10			
20th	- - -	51	4	8¼			
	Deduct -	5	–	–			
		46	4	8¼	46	4	8¼
	Interest -	1	7	8¾			
		47	12	5			

Year		£.	s.	d.	£.	s.	d.
21st	- - -	47	12	5			
	Deduct -	5	–	–			
		42	12	5	42	12	5
	Interest -	1	5	6½			
22d	- - -	43	17	11½			
	Deduct -	5	–	–			
		38	17	11½	38	17	11½
	Interest -	1	3	3¾			
23d	- - -	40	1	3¼			
	Deduct -	5	–	–			
		35	1	3¼	35	1	3¼
	Interest -	1	1	–½			
24th	- - -	36	2	3¾			
	Deduct -	5	–	–			
		31	2	3¾	31	2	3¾
	Interest -	–	18	7¾			
25th	- - -	32	–	11½			
	Deduct -	5	–	–			
		27	–	11½	27	–	11½
	Interest -	–	16	2½			
26th	- - -	27	16	2			
	Deduct -	5	–	–			
		22	16	2	22	16	2
	Interest -	–	13	7¾			
27th	- - -	23	9	9¾			
	Deduct -	5	–	–			
		18	9	9¾	18	9	9¾
	Interest -	–	11	1			
28th	- - -	19	–	10¾			
	Deduct -	5	–	–			
		14	–	10¾	14	–	10¾
	Interest -	–	8	5			
29th	- - -	14	8	5¾			
	Deduct -	5	–	–			
		9	8	5¾	9	8	5¾
	Interest -	–	5	7¾			
30th	- - -	9	14	1½			
	Deduct -	5	–	–			
		4	14	1½	4	14	1½
	Interest -	–	2	9½			
31st	- - -	4	16	11	4	16	11

(No. 3.)

WITHIN how many years will £.100, at £.3 per Cent. Interest, be discharged by an Annual Payment of £.6?——Answer, 24 Years.

YEAR		£. s. d.	£. s. d.
		100 – –	
	Interest -	3 – –	
1st	- - -	103 – –	
	Deduct -	6 – –	
		97 – –	97 – –
	Interest -	2 18 2¼	
2d	- - -	99 18 2¼	
	Deduct -	6 – –	
		93 18 2¼	93 18 2¼
	Interest -	2 16 3¾	
3d	- - -	96 14 6¼	
	Deduct -	6 – –	
		90 14 6¼	90 14 6¼
	Interest -	2 14 5	
4th	- - -	93 8 11¼	
	Deduct -	6 – –	
		87 8 11¼	87 8 11¼
	Interest -	2 12 5¼	
5th	- - -	90 1 4½	
	Deduct -	6 – –	
		84 1 4½	84 1 4½
	Interest -	2 10 5¼	
6th	- - -	86 11 9¾	
	Deduct -	6 – –	
		80 11 9¾	80 11 9¾
	Interest -	2 8 4¼	
7th	- - -	83 – 2	
	Deduct -	6 – –	
		77 – 2	77 – [illegible]
	Interest -	2 6 2¼	
8th	- - -	79 6 4¼	
	Deduct -	6 – –	
		73 6 4¼	73 6 4¼
	Interest -	2 3 11½	
9th	- - -	75 10 3¾	
	Deduct -	6 – –	
		69 10 3¾	69 10 3¾
	Interest -	2 1 8¼	
10th	- - -	71 12 –	
	Deduct -	6 – –	
		65 12 –	65 12 –
	Interest -	1 19 4	
11th	- - -	67 11 4	
	Deduct -	6 – –	
		61 11 4	61 11 4
	Interest -	1 16 11	
		63 8 3	

YEAR		£ s. d.	£. s. d.
12th	- - -	63 8 3	
	Deduct -	6 – –	
		57 8 3	57 8 3
	Interest -	1 14 5¼	
13th	- - -	59 2 8¼	
	Deduct -	6 – –	
		53 2 8¼	53 2 8¼
	Interest -	1 11 10¼	
14th	- - -	54 13 6½	
	Deduct -	6 – –	
		48 13 6½	48 13 6½
	Interest -	1 9 2	
15th	- - -	50 2 8½	
	Deduct -	6 – –	
		44 2 8½	44 2 8½
	Interest -	1 6 5½	
16th	- - -	45 9 2	
	Deduct -	6 – –	
		39 9 2	39 9 2
	Interest -	1 3 8¼	
17th	- - -	40 12 10¼	
	Deduct -	6 – –	
		34 12 10¼	34 12 10¼
	Interest -	1 – 9	
18th	- -	35 13 7¼	
	Deduct -	6 – –	
		29 13 7¼	29 13 7¼
	Interest -	– 17 9¼	
19th	- - -	30 11 4½	
	Deduct -	6 – –	
		24 11 4½	24 11 4½
	Interest -	– 14 8¾	
20th	- - -	25 6 1¼	
	Deduct -	6 – –	
		19 6 1¼	19 6 1¼
	Interest -	– 11 6¾	
21st	- - -	19 17 8	
	Deduct -	6 – –	
		13 17 8	13 17 8
	Interest -	– 8 3¾	
22d	- - -	14 5 11¾	
	Deduct -	6 – –	
		8 5 11¾	8 5 11¾
	Interest -	– 4 11¼	
23d	- - -	8 10 11	
	Deduct -	6 – –	
		2 10 11	2 10 11
	Interest -	– 1 6	
24th	- - -	2 12 5	2 12 5

(No. 4.)

WITHIN how many years will £. 100, at £. 4 per Cent. Interest, be discharged by an Annual Payment of £. 7?——Answer, 22 Years.

YEAR		£. s. d.	£. s. d.
		100 – –	
	Interest	4 – –	
1st		104 – –	
	Deduct	7 – –	
		97 – –	97 – –
	Interest	3 17 7	
2d		100 17 7	
	Deduct	7 – –	
		93 17 7	93 17 7
	Interest	3 15 –	
3d		97 12 7	
	Deduct	7 – –	
		90 12 7	90 12 7
	Interest	3 12 6	
4th		94 5 1	
	Deduct	7 – –	
		87 5 1	87 5 1
	Interest	3 9 9½	
5th		90 14 10½	
	Deduct	7 – –	
		83 14 10½	83 14 10½
	Interest	3 7 –	
6th		87 1 10½	
	Deduct	7 – –	
		80 1 10½	80 1 10½
	Interest	3 4 –¾	
7th		83 5 11¼	
	Deduct	7 – –	
		76 5 11¼	76 5 11¼
	Interest	3 1 –	
8th		79 6 11¼	
	Deduct	7 – –	
		72 6 11¼	72 6 11¼
	Interest	2 17 10	
9th		75 4 9¼	
	Deduct	7 – –	
		68 4 9¼	68 4 9¼
	Interest	2 14 7	
10th		70 19 4¼	
	Deduct	7 – –	
		63 19 4¼	63 19 4¼
	Interest	2 11 2	
		66 10 6¼	

YEAR		£. s. d.	£. s. d.
11th		66 10 6¼	
	Deduct	7 – –	
		59 10 6¼	59 10 6¼
	Interest	2 7 7	
12th		61 18 1¼	
	Deduct	7 – –	
		54 18 1¼	54 18 1¼
	Interest	2 3 11	
13th		57 2 –¼	
	Deduct	7 – –	
		50 2 –¼	50 2 –¼
	Interest	2 – 1	
14th		52 2 1¼	
	Deduct	7 – –	
		45 2 1¼	45 2 1¼
	Interest	1 16 1	
15th		46 18 2¼	
	Deduct	7 – –	
		39 18 2¼	39 18 2¼
	Interest	1 11 10¾	
16th		41 10 –	
	Deduct	7 – –	
		34 10 –	34 10 –
	Interest	1 7 8½	
17th		35 17 8½	
	Deduct	7 – –	
		28 17 8½	28 17 8½
	Interest	1 3 1¼	
18th		30 – 9¾	
	Deduct	7 – –	
		23 – 9¾	23 – 9¾
	Interest	– 18 5	
19th		23 19 2¾	
	Deduct	7 – –	
		16 19 2¾	16 19 2¾
	Interest	– 13 6¾	
20th		17 12 8½	
	Deduct	7 – –	
		10 12 8½	10 12 8½
	Interest	– 8 6	
21st		11 1 2½	
	Deduct	7 – –	
		4 1 2½	4 1 2½
	Interest	– 3 2½	
22d		4 4 5	4 4 5

(No. 5.)

WITHIN how many years will £. 100, at £. 4 per Cent. Interest, be discharged by an Annual Payment of £. 6?——Answer, 28 Years.

YEAR		£.	s.	d.	£.	s.	d.
		100	–	–			
	Interest	4	–	–			
1st		104	–	–			
	Deduct	6	–	–			
		98	–	–	98	–	–
	Interest	3	18	4¾			
2d		101	18	4¾			
	Deduct	6	–	–			
		95	18	4¾	95	18	4¾
	Interest	3	16	9			
3d		99	15	1¾			
	Deduct	6	–	–			
		93	15	1¾	93	15	1¾
	Interest	3	14	11¾			
4th		97	10	1½			
	Deduct	6	–	–			
		91	10	1½	91	10	1½
	Interest	3	13	2¼			
5th		95	3	3¾			
	Deduct	6	–	–			
		89	3	3¾	89	3	3¾
	Interest	3	11	3¼			
6th		92	14	7			
	Deduct	6	–	–			
		86	14	7	86	14	7
	Interest	3	9	3¼			
7th		90	3	7¼			
	Deduct	6	–	–			
		84	3	7¼	84	3	7¼
	Interest	3	7	3½			
8th		87	10	10¾			
	Deduct	6	–	–			
		81	10	10¾	81	10	10¾
	Interest	3	5	2¾			
9th		84	16	1½			
	Deduct	6	–	–			
		78	16	1½	78	16	1½
	Interest	3	3	–			
10th		81	19	1½			
	Deduct	6	–	–			
		75	19	1½	75	19	1½
	Interest	3	–	9¼			
11th		78	19	10¾			
	Deduct	6	–	–			
		72	19	10¾	72	19	10¾
	Interest	2	18	4½			
		75	18	3¼			

YEAR		£.	s.	d.	£.	s.	d.
12th		75	18	3¼			
	Deduct	6	–	–			
		69	18	3¼	69	18	3¼
	Interest	2	15	10½			
13th		72	14	1¾			
	Deduct	6	–	–			
		66	14	1¾	66	14	1¾
	Interest	2	13	4½			
14th		69	7	6¼			
	Deduct	6	–	–			
		63	7	6¼	63	7	6¼
	Interest	2	10	8¼			
15th		65	18	2½			
	Deduct	6	–	–			
		59	18	2½	59	18	2½
	Interest	2	7	11			
16th		62	6	1½			
	Deduct	6	–	–			
		56	6	1½	56	6	1½
	Interest	2	5	–½			
17th		58	11	2			
	Deduct	6	–	–			
		52	11	2	52	11	2
	Interest	2	2	–			
18th		54	13	2			
	Deduct	6	–	–			
		48	13	2	48	13	2
	Interest	1	18	10¾			
19th		50	12	–¾			
	Deduct	6	–	–			
		44	12	–¾	44	12	–¾
	Interest	1	15	8			
20th		46	7	8¾			
	Deduct	6	–	–			
		40	7	8¾	40	7	8¾
	Interest	1	12	3½			
21st		41	19	11¼			
	Deduct	6	–	–			
		35	19	11¼	35	19	11¼
	Interest	1	8	9½			
22d		37	8	8¾			
	Deduct	6	–	–			
		31	8	8¾	31	8	8¾
	Interest	1	5	1¾			
23d		32	13	10½			
	Deduct	6	–	–			
		26	13	10½	26	13	10½
	Interest	1	1	4¾			
		27	14	3¼			

(*continued.*)

(No. 5.)—*continued.*

Year		£. s. d.	£. s. d.
24th		27 14 3¼	
	Deduct	6 – –	
		21 14 3¼	21 14 3¼
	Interest	– 17 4½	
25th		22 11 7¾	
	Deduct	6 – –	
		16 11 7¾	16 11 7¾
	Interest	– 13 2½	
26th		17 4 10¼	
	Deduct	6 – –	
		11 4 10¼	11 4 10¼
	Interest	– 8 11¾	
27th		11 13 10	11 13 10
	Deduct	6 – –	
		5 11 10	5 11 10
	Interest	– 4 5¼	
28th		5 16 3¼	5 16 3¼

(No. 6.)

Within how many years will £.100, at 5 per Cent. Interest, be discharged by an Annual Payment of £.9?——Answer, 17 years.

Year		£. s. d.	£. s. d.
		100 – –	
	Interest	5 – –	
1st		105 – –	
	Deduct	9 – –	
		96 – –	96 – –
	Interest	4 16 –	
2d		100 16 –	
	Deduct	9 – –	
		91 16 –	91 16 –
	Interest	4 11 9	
3d		96 7 9	
	Deduct	9 – –	
		87 7 9	87 7 9
	Interest	4 7 4½	
		91 15 1½	
	Deduct	9 – –	
		82 15 1½	82 15 1½
	Interest	4 2 9	
5th		86 17 11½	
	Deduct	9 – –	
		77 17 11½	77 17 11½
	Interest	3 17 10½	
6th		81 15 10	
	Deduct	9 – –	
		72 15 10	72 15 10
	Interest	3 12 9¼	
7th		76 8 7¼	
	Deduct	9 – –	
		67 8 7¼	67 8 7¼
	Interest	3 7 5	
8th		70 16 –¼	
	Deduct	7 – –	
		63 16 –¼	63 16 –¼
	Interest	3 3 9½	
		66 19 9¾	
9th		66 19 9¾	
	Deduct	9 – –	
		57 19 9¾	57 19 9¾
	Interest	2 18 –	
10th		60 17 9¾	
	Deduct	9 – –	
		51 17 9¾	51 17 9¾
	Interest	2 11 10½	
11th		54 9 8¼	
	Deduct	9 – –	
		45 9 8¼	45 9 8¼
	Interest	2 5 6	
12th		47 15 2¼	
	Deduct	9 – –	
		38 15 2¼	38 15 2¼
	Interest	1 18 9	
13th		40 13 11¼	
	Deduct	9 – –	
		31 13 11¼	31 13 11¼
	Interest	1 11 8	
14th		33 5 7¼	
	Deduct	9 – –	
		24 5 7¼	24 5 7¼
	Interest	1 4 3¾	
15th		25 9 10	
	Deduct	9 – –	
		16 9 10	16 9 10
	Interest	– 16 6	
16th		17 6 4	
	Deduct	9 – –	
		8 6 4	8 6 4
	Interest	– 8 4	
17th		8 14 8	8 14 8

(No. 7.)

WITHIN how many Years will £.100, at 6 per Cent. Interest, be discharged by an Annual Payment of £.10.——Answer, 16 Years.

YEAR		£. s. d.	£. s. d.
		100 – –	
	Interest -	6 – –	
1st - -	-	106 – –	
	Deduct -	10 – –	
		96 – –	96 – –
	Interest -	5 15 2	
2d - -	-	101 15 2	
	Deduct -	10 – –	
		91 15 2	91 15 2
	Interest -	5 10 –½	
3d - -	-	97 5 2½	
	Deduct -	10 – –	
		87 5 2½	87 5 2½
	Interest -	5 4 8	
4th - -	-	92 9 10½	
	Deduct -	10 – –	
		82 9 10½	82 9 10½
	Interest -	4 18 11½	
5th - -	-	87 8 10	
	Deduct -	10 – –	
		77 8 10	77 8 10
	Interest -	4 12 10½	
6th - -	-	82 1 8½	
	Deduct -	10 – –	
		72 1 8½	72 1 8½
	Interest -	4 6 5	
7th - -	-	76 8 1½	
	Deduct -	10 – –	
		66 8 1½	66 8 1½
	Interest -	3 19 8	
8th - -	-	70 7 9½	
	Deduct -	10 – –	
		60 7 9½	60 7 9½
	Interest -	3 12 6	
		64 – 3½	

YEAR		£. s. d.	£. s. d.
9th - -	-	64 – 3½	
	Deduct -	10 – –	
		54 – 3½	54 – 3½
	Interest -	3 4 9½	
10th - -	-	57 5 1	
	Deduct -	10 – –	
		47 5 1	47 5 1
	Interest -	2 16 8	
11th - -	-	50 1 9	
	Deduct -	10 – –	
		40 1 9	40 1 9
	Interest -	2 8 1	
12th - -	-	42 9 10	
	Deduct -	10 – –	
		32 9 10	32 9 10
	Interest -	1 18 11½	
13th - -	-	34 8 9½	
	Deduct -	10 – –	
		24 8 9½	24 8 9½
	Interest -	1 9 4½	
14th - -	-	25 18 2	
	Deduct -	10 – –	
		15 18 2	15 18 2
	Interest -	– 19 1	
15th - -	-	16 17 3	
	Deduct -	10 – –	
		6 17 3	6 17 3
	Interest -	– 8 –½	
16th - -	-	7 5 3½	

(No. 8.)

£.100 at 3 per Cent. Interest, and 3 per Cent. Sinking Fund.

YEAR	£.	£. s. d.
1st -	100 - -	6 – –
2d -	97 - -	5 18 2¼
3d -	94 - -	5 16 4¾
4th -	91 - -	5 14 7
5th -	88 - -	5 12 9½
6th -	85 - -	5 11 –
7th -	82 - -	5 9 2¼
8th -	79 - -	5 7 4¾
9th -	76 - -	5 5 7
10th -	73 - -	5 3 9½
11th -	70 - -	5 2 –
12th -	67 - -	5 – 2¼

YEAR	£.	£. s. d.
13th -	64 - -	4 18 4¾
14th -	61 - -	4 16 7
15th -	58 - -	4 14 9½
16th -	55 - -	4 13 –
17th -	52 - -	4 11 2¼
18th -	49 - -	4 9 4¾
19th -	46 - -	4 7 7
20th -	43 - -	4 5 9½
21st -	40 - -	4 4 –
22d -	37 - -	4 2 2¼
23d -	34 - -	4 – 4¾

YEAR	£.	£. s. d.
24th -	31 - -	3 18 7
25th -	28 - -	3 16 9½
26th -	25 - -	3 15 –
27th -	22 - -	3 13 2¼
28th -	19 - -	3 11 4¾
29th -	16 - -	3 9 7
30th -	13 - -	3 7 9½
31st -	10 - -	3 6 –
32d -	7 - -	3 4 2¼
33d -	4 - -	3 2 4¾
34th -	1 - -	1 – 7

(No. 9.)

£. 100 at 5 per Cent. Interest, and 9 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	14	–	–	5th	64	12	4	–	9th	28	10	8	–
2d	91	13	11	–	6th	55	11	15	–	10th	19	9	19	–
3d	82	13	2	–	7th	46	11	6	–	11th	10	9	10	–
4th	73	12	13	–	8th	37	10	17	–					

(No. 10.)

£. 100 at 6 per Cent. Interest, and 10 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	16	–	–	5th	60	13	12	–	8th	30	11	16	–
2d	90	15	8	–	6th	50	13	–	–	9th	20	11	4	–
3d	80	14	16	–	7th	40	12	8	–	10th	10	10	12	–
4th	70	14	4	–										

(No. 11.)

£. 100 at 4 per Cent. Interest, and 6 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	10	–	–	7th	64	8	11	2 ¼	13th	28	7	2	4 ¾
2d	94	9	15	2 ¼	8th	58	8	6	4 ¾	14th	22	6	17	7
3d	88	9	10	4 ¾	9th	52	8	1	7	15th	16	6	12	9 ½
4th	82	9	5	7	10th	46	7	16	9 ½	16th	10	6	8	–
5th	76	9	–	9 ½	11th	40	7	12	–	17th	4	4	3	2 ¼
6th	70	8	16	–	12th	34	7	7	2 ¼					

(No. 12.)

£. 100 at 4 per Cent. Interest, and 7 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	11	–	–	6th	65	9	12	–	11th	30	8	4	–
2d	93	10	14	4 ¾	7th	58	9	6	4 ¾	12th	23	7	18	4 ¾
3d	86	10	8	9 ½	8th	51	9	–	9 ½	13th	16	7	12	9 ½
4th	79	10	3	2 ¼	9th	44	8	15	2 ¼	14th	9	7	7	2 ¼
5th	72	9	17	7	10th	37	8	9	7	15th	2	2	1	7

(No. 13.)

£. 100 at 5 per Cent. Interest, and 4 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	9	–	–	10th	64	7	4	–	18th	32	5	12	–
2d	96	8	16	–	11th	60	7	–	–	19th	28	5	8	–
3d	92	8	12	–	12th	56	6	16	–	20th	24	5	4	–
4th	88	8	8	–	13th	52	6	12	–	21st	20	5	–	–
5th	84	8	4	–	14th	48	6	8	–	22d	16	4	16	–
6th	80	8	–	–	15th	44	6	4	–	23d	12	4	12	–
7th	76	7	16	–	16th	40	6	–	–	24th	8	4	8	–
8th	72	7	12	–	17th	36	5	16	–	25th	4	4	4	–
9th	68	7	8	–										

(No. 14.)

£. 100 at 6 per Cent. Interest, and 4 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	10	–	–	10th	64	7	16	9 ½	18th	32	5	18	4 ½
2d	96	9	15	2	11th	60	7	12	–	19th	28	5	13	7
3d	92	9	10	4 ½	12th	56	7	7	2	20th	24	5	8	9 ½
4th	88	9	5	7	13th	52	7	2	4 ½	21st	20	5	4	–
5th	84	9	–	9 ½	14th	48	6	17	7	22d	16	4	19	2
6th	80	8	16	–	15th	44	6	12	9 ½	23d	12	4	14	4 ½
7th	76	8	11	2	16th	40	6	8	–	24th	8	4	9	7
8th	72	8	6	4 ½	17th	36	6	3	2	25th	4	4	4	9 ½
9th	68	8	1	7										

(No. 15.)

£. 100 at 4 per Cent. Interest, and 2 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	6	–	–	18th	66	4	12	9½	35th	32	3	5	7
2d	98	5	18	4¾	19th	64	4	11	2¼	36th	30	3	4	–
3d	96	5	16	9½	20th	62	4	9	7	37th	28	3	2	4¾
4th	94	5	15	2¼	21st	60	4	8	–	38th	26	3	–	9½
5th	92	5	13	7	22d	58	4	6	4¾	39th	24	2	19	2¼
6th	90	5	12	–	23d	56	4	4	9½	40th	22	2	17	7
7th	88	5	10	4¾	24th	54	4	3	2¼	41st	20	2	16	–
8th	86	5	8	9½	25th	52	4	1	7	42d	18	2	14	4¾
9th	84	5	7	2¼	26th	50	4	–	–	43d	16		12	9½
10th	82	5	5	7	27th	48	3	18	4¾	44th	14	2	11	2¼
11th	80	5	4	–	28th	46	3	16	9½	45th	12	2	9	7
12th	78	5	2	4¾	29th	44	3	15	2¼	46th	10	2	8	–
13th	76	5	–	9½	30th	42	3	13	7	47th	8	2	6	4¾
14th	74	4	19	2¼	31st	40	3	12	–	48th	6	2	4	9½
15th	72	4	17	7	32d	38	3	10	4¾	49th	4	2	3	2¼
16th	70	4	16	–	33d	36	3	8	9½	50th	2	2	1	7
17th	68	4	14	4¾	34th	34	3	7	2¼					

(No. 16.)

£. 100 at 3 per Cent. Interest, and 5 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	8	–	–	8th	65	6	19	–	15th	30	5	18	–
2d	95	7	17	–	9th	60	6	16	–	16th	25	5	15	–
3d	90	7	14	–	10th	55	6	13	–	17th	20	5	12	–
4th	85	7	11	–	11th	50	6	10	–	18th	15	5	9	–
5th	80	7	8	–	12th	45	6	7	–	19th	10	5	6	–
6th	75	7	5	–	13th	40	6	4	–	20th	5	5	3	–
7th	70	7	2	–	14th	35	6	1	–					

(No. 17.)

£. 100 at 3 per Cent. Interest, and 6 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	9	–	–	7th	64	7	18	4¾	13th	28	6	16	9½
2d	94	8	16	4¾	8th	58	7	14	9½	14th	22	6	13	2¼
3d	88	8	12	9½	9th	52	7	11	2¼	15th	16	6	9	7
4th	82	8	9	2¼	10th	46	7	7	7	16th	10	6	6	–
5th	76	8	5	7	11th	40	7	4	–	17th	4	4	2	4¾
6th	70	8	2	–	12th	34	7	–	4¾					

(No. 18.)

£. 100 at 4 per Cent. Interest, and 3 per Cent. Sinking Fund.

Year	£.	£.	s.	d.	Year	£.	£.	s.	d.	Year	£.	£.	s.	d.
1st	100	7	–	–	13th	64	5	11	2¼	24th	31	4	4	9½
2d	97	6	17	7	14th	61	5	8	9½	25th	28	4	2	4¾
3d	94	6	15	2¼	15th	58	5	6	4¾	26th	25	4	–	–
4th	91	6	12	9½	16th	55	5	4	–	27th	22	3	17	7
5th	88	6	10	4¾	17th	52	5	1	7	28th	19	3	15	2¼
6th	85	6	8	–	18th	49	4	19	2¼	29th	16	3	12	9½
7th	82	6	5	7	19th	46	4	16	9½	30th	13	3	10	4¾
8th	79	6	3	2¼	20th	43	4	14	4¾	31st	10	3	8	–
9th	76	6	–	9½	21st	40	4	12	–	32d	7	3	5	7
10th	73	5	18	4¾	22d	37	4	9	7	33d	4	3	3	2¼
11th	70	5	16	–	23d	34	4	7	2¼	34th	1	1	–	9½
12th	67	5	13	7										

Appendix, No. 2.

PAPERS delivered in to the Committee by Colonel *John Fox Burgoyne.*

(No. 1.)

STATEMENT of the several LOANS made by the COMMISSIONERS of PUBLIC WORKS in *Ireland*, pursuant to the Provisions of the Act 1 & 2 WILL. IV. c. 33, up to the 1st of January 1835.

No.	OBJECT.	Amount of LOAN sanctioned.	Amount of Exchequer Bills issued on account of each.	REPAYMENTS. PRINCIPAL.	REPAYMENTS. INTEREST.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	Road from Drumsna to Bundoran, county Leitrim	2,511 17 5	2,500 – –	402 12 4	266 5 2
2	Road from Kilkenny to Freshford, co. Kilkenny	623 – –	600 – –	176 12 9	56 19 9
3	Completing the Works of Ardglass Harbour -	6,650 – –	6,650 – –	—	—
4	Working of the Quarries at Valentia - -	7,000 – –	7,000 – –	- - -	230 – 8
5	To improve the Works of the Limerick Navigation Company - - - - - -	8,910 – –	8,500 – –	- - -	661 4 3
6	Ennis Road, through the liberties of the city of Limerick - - - - - - - -	205 – –	200 – –	110 16 8	17 5 10
7	Waterford Road - - - ditto - - -	560 – –	560 – –	302 17 9	47 2 3
8	Drainage of farms near Nenagh, county Tipperary	200 – –	200 – –	- - -	15 – –
9	Erecting Machinery, Cronebane Copper Mines, county Wicklow - - - - - -	1,000 – –	1,000 – –	484 11 5	85 10 2
10	In aid of Machinery, Ballymurtagh Mine - ditto	1,000 – –	1,000 – –	- - -	59 1 11
11	Road from Clogheen to Cappoquin, county Tipperary - - - - - - - - -	1,278 11 10	1,250 – –	434 17 1	44 12 2
12	- - Ditto - - - - - county Waterford	1,895 12 7	1,850 – –	1,004 8 7	39 10 9
13	Building a Court-house at Carlow - - -	5,000 – –	5,000 – –	2,184 5 4	315 14 8
14	Continuing Quay-wall at Claddagh, Galway -	300 – –	250 – –	61 6 2	10 13 10
15	Completing the Wellesley Bridge and Docks, Limerick - - - - - - - - -	25,000 – –	19,300 – –	1,250 – –	658 14 10
16	Road from Strokestown to Lung Bridge, county Roscommon - - - - - - - -	7,111 8 11	4,650 – –	2,069 5 2	64 3 6
17	Slate Quarries near Killaloe - - - - -	500 – –	500 – –	- - -	26 19 6
18	Athlunkard Bridge, and Approaches thereto, over the river Shannon - - - - - -	9,889 19 2	9,850 – –	- - -	152 17 4
19	—	—	—	—	—
20	Constructing a Floating Dock at Galway - -	17,000 – –	4,000 – –	636 5 7	212 11 10
21	Road between Castlereagh and Ballinasloe, near Ballygar, county Galway - - - - -	346 8 3	300 – –	94 17 4	10 2 8
22	Road between Ennis and Ballinasloe, near Lough Graney, county Clare - - - - - -	1,153 1 7	800 – –	465 18 6	9 4 1
23	Road, continuation of same to Derrybrien, county Galway - - - - - - - - -	534 4 2	500 – –	221 3 7	4 4 5
24	Bridge over the Bann at Agivey, county Londonderry - - - - - - - - -	1,250 – –	1,250 – –	162 3 9	25 6 3
25	Ditto - - - ditto - - county Antrim -	1,250 – –	1,250 – –	340 16 7	24 15 11
26	Road from Larne to Ballycastle, county Antrim	11,303 4 –	9,000 – –	2,699 12 1	83 16 –
27	Road from Carrickfergus to Antrim and Larne -	1,485 1 8	—	—	—
28	To improve the Newry Navigation - - -	12,000 – –	8,000 – –	489 14 10	150 18 8
29	Drainage of Farms, Earl of Besborough, county Kilkenny - - - - - - - - -	2,000 – –	1,150 – –	—	—
30	Road from Dublin to Blessington - - -	3,500 – –	2,750 – –	175 – –	29 3 8
31	Railway from Dublin to Kingstown - -	75,000 – –	74,000 – –	—	—
32	To improve the Harbour of Drogheda - -	10,000 – –	4,000 – –	—	—
33	Road from Loughrea to Derrybrien, co. Galway	720 – –	400 – –	200 4 7	2 5 5
34	Completing Repairs of Road leading to Waterford through Limerick - - - - -	296 3 6	290 – –	133 10 5	14 11 3
35	Ditto - - - Ennis - - ditto - -	117 6 8	100 – –	54 7 6	4 10 10
36	Road from Abbeyfeale to Glin, county Limerick	1,181 15 3	700 – –	305 6 4	1 18 9
37	Bridge over the river Inagh, near Liscannor, county Clare - - - - - - -	2,222 14 –	1,200 – –	901 16 11	15 4 1
38	Road from Kenmare to Glengarriff, county Cork	2,737 16 –	1,250 – –	992 16 3	13 6 8
39	Same Road - - - county Kerry - -	5,865 18 –	2,750 – –	2,445 15 3	17 18 6
40	Road from Five-mile Town to Clones, county Fermanagh - - - - - - - -	2,600 – –	1,500 – –	260 9 6	—
41	Road near Meelick to Cratloe Hill, county Clare	1,250 – –	1,200 – –	258 17 5	27 2 7
42	Road from Portumna to Mount Shannon, county Galway - - - - - - - - -	2,178 – –	900 – –	424 16 1	4 12 4
43	Road from Omagh to Cookstown, county Tyrone	2,334 – –	2,050 – –	172 14 –	2 8 2
44	Road from Balieborough to Virginia, county Cavan - - - - - - - - -	1,936 – –	200 – –	—	—
45	Road from Centinaveena Coal-pits to Dromahair, county Leitrim - - - - - - -	1,943 – –	500 – –	278 9 1	12 18 11

N.	OBJECT.	Amount of LOAN sanctioned.	Amount of Exchequer Bills issued on account of each.	REPAYMENTS. PRINCIPAL.	REPAYMENTS. INTEREST.
		£. s. d.	£. s. d.	£. s. d.	£. s. d.
46	To complete a Roman Catholic Chapel at Bruree, county Limerick	150 – –	150 – –	—	—
47	Road through liberty of Waterford, and part of road to Tramore	1,550 – –	600 – –	477 – 6	—
48	For Improvements to the Harbour of Ballyshannon, county Donegal	5,000 – –	—	—	—
49	Road from Johnstown to Bawn, county Kilkenny	182 – –	150 – –	11 2 6	2 10 6
50	Road from Killaloe to Tomgraney, county Clare	2,850 – –	350 – –	—	—
51	To complete a Roman Catholic Chapel at Buttevant, county Cork	600 – –	—	—	—
52	Road from Derrygonnelly to Manorhamilton, county Fermanagh	2,350 – –	—	—	—
53	Turnpike Road between Dublin and Mullingar	3,000 – –	1,500 – –	—	—
54	Road from Kilkenny to Piltown, county Kilkenny	1,050 – –	350 – –	46 2 7	5 6 5
55	Road over Cratloe Hill to Moyhill, county Clare	1,700 – –	—	—	—
56	Road from near Ross to Borris, county Wexford	2,800 – –	—	—	—
57	Boyne Navigation from Carrickdexter Lock to Drogheda	1,750 – –	500 – –	—	—
58	Road from Mallins to Gindore River, county Donegal	750 – –	750 – –	66 5 5	8 14 7
59	New Bridge at Belturbet, county Cavan	1,700 – –	—	—	—
60	Road from Carnew to Tullow, county Wicklow	2,000 – –	—	—	—
61	For rebuilding Thomond Bridge, city of Limerick	9,000 – –	—	—	—
62	Improvement in Turnpike Road from Dublin to Dunleer	1,600 – –	—	—	—
63	Road from Bailieborough by Moynalty to Kells, county Cavan	898 15 –	—	—	—
64	For clearing away a mass of very bad Buildings in Barrack-street, for an improved entrance to the city of Dublin - - Wide-Street Commissioners	25,000 – –	—	—	—
65	The Ecclesiastical Commissioners, pursuant to Act 4 & 5 Will. 4, c. 90	46,000 – –	—	—	—
	£.	351,770 18 –	195,250 – –	20,796 19 10	3,435 9 1

(No. 2.)

STATEMENT of LOANS and GRANTS made by the BOARD of PUBLIC WORKS, pursuant to the Act of the 1 & 2 WILL. IV. c. 33, classed in the order of the Description of Works for which they were advanced, including those approved, but not definitively sanctioned.

No.	OBJECTS.	Aggregates.
	LOANS:	£. s. d.
39	Roads	79,698 4 10
8	Bridges	49,412 13 2
4	Navigations	29,160 – –
9	Harbours and Quays	111,950 – –
2	Railways	80,000 – –
3	Quarries and Culm-pit	9,500 – –
2	Mines (Machinery)	2,000 – –
2	Drainage	2,200 – –
1	Court House	5,000 – –
1	Hospital	2,500 – –
2	Chapels (completing)	750 – –
1	Dublin Wide-Streets	25,000 – –
1	Ecclesiastical Commissioners	100,000 – –
	£.	497,170 18 –
	GRANTS:	
17	Roads	30,067 12 2
1	Bridge	2,222 14 –
2	Piers and Quay	418 – –
	£.	32,708 6 2

Office of Public Works, 27 April 1835.

Henry R. Paine, Secy

(No. 3.)

STATEMENT of Loans made by the Commissioners of Public Works, *Ireland*, showing the Amount paid to Engineers for Preliminary Investigations, Surveys, Inspections, &c., by Parties making application for Loan or Grant; ended 31 December 1834.

No of Loan.	AMOUNT.	PURPOSE.	Name of Engineer employed.	Amount of Expenses Paid.
	£. s. d.			£. s. d.
1	2,511 17 5	Road Drumsna to Bundoran - - -	John Kelly - -	14 2 4
2	623 - -	- Kilkenny to Freshford.	—	—
3	6,650 - -	Harbour at Ardglass.	—	—
4	7,000 - -	Slate Quarries at Valentia - - - -	H. H. Killaly -	27 2 6
5	8,910 - -	Limerick Navigation.	—	—
6	205 - -	Road to Ennis, Liberties of Limerick - -	E. Russell - -	6 2 6
7	560 - -	- to Waterford - ditto - - - -		
8	200 - -	James O'Gorman.	—	—
9	1,000 - -	Copper Mine, County Wicklow - - -	Samson Carter -	10 - -
10	1,000 - -	Richard Johnston, for Machinery.	—	—
11	1,278 11 10	Road Clogheen to Cappoquin - - -	Late John Killaly, as Engineer to Board.	—
12	1,895 12 7	- - - Same - - - - - -		
13	5,000 - -	Court-house at Carlow - - - -	J. Owen.	—
14	300 - -	Quay-walls at Claddagh - - - -	H. H. Killaly	—
15	25,000 - -	Wellesley Bridge and Docks - - -	Thomas Rhodes -	87 - -
16	7,111 8 11	Road Strokestown to Lung Bridge - -	E. Russell - -	11 3 11
17	500 - -	John Salmon, Slate Quarries.	—	—
18	9,889 19 2	Bridge at Athlunkard - - - - -	Thomas Rhodes -	25 - -
19	100 - -	Roman Catholic Chapel.	—	—
20	17,000 - -	Floating Docks, Galway - - - -	H. H. Killaly.	—
21	346 8 3	Ballygar Road - - - - - -	H. H. Killaly -	8 14 6
22	1,153 1 7	Loughgraney Road, County Clare - -	J. Grantham -	14 5 6
23	534 4 2	Derrybrien Road, County Galway - -		
24	11,303 4 -	- Same - to Ballycastle Road - - -	William Bald -	100 - -
25	1,250 - -	Bridge over the Bann at Agivey, Antrim	William Bald -	32 18 8
26	1,250 - -	and Derry - - - - - - -		
27	1,435 1 8	Road, Carrickfergus to Antrim - - -	William Armstrong	50 - -
28	12,000 - -	Newry Navigation - - - - -	George Halpin -	16 4 5
29	2,000 - -	Drainage of Farms, Earl Besborough.	—	—
30	3,500 - -	Road, Dublin to Blessington - - -	Jacob Owen -	4 6 -
31	75,000 - -	Railway, Dublin to Kingstown.	—	—
32	10,000 - -	Harbour at Drogheda - - - - -	William Bald -	25 16 -
33	720 - -	Road, Loughrea to Derrybrien (*see* Loughgrancy ; continuation of Nos. 22 and 23.)		
34	296 3 6	- leading to Waterford from Limerick -	Same as Nos. 6 and 7.	
35	117 6 8	- leading to Ennis from Limerick - -		
36	2,222 14 -	Bridge at Liscannor - - - - -	George Halpin - and Jacob Owen -	18 - - 21 5 -
37	1,181 15 3	Road, Abbeyfeale to Glin - - - -	R. Robinson -	5 1 4
38	2,737 16 -	- Kenmare to Glengariffe - - -	William Bald -	80 - -
39	5,865 18 -	- - - Same - - - - - -		
40	2,600 - -	- Five-mile Town to Clones - - -	Vignolles & Carter	49 16 2
41	1,250 - -	- near Meelick, Cratloe Hill - -	Not yet paid.	—
42	2,178 - -	- Portumna to Mount Shannon - -	H. H. Killaly -	31 2 -
43	2,334 - -	- Omagh to Cookstown - - -	John Richardson -	5 8 3
44	1,936 - -	- Balieborough to Virginia - - -	Vignolles & Carter	39 8 11
45	1,943 - -	- Centinaveena to Dromahair - -	H. H. Killaly -	28 10 6 25 15 6
46	150 - -	Roman Catholic Chapel, County Limerick.	—	—
47	1,550 - -	Road, Waterford to Tramore - - -	Samson Carter -	6 17 -
48	5,000 - -	Harbour of Ballyshannon - - - -	Jacob Owen -	15 2 -
49	182 - -	Road, Johnstown to Bawn - - - -	Bart. Ellis - -	5 2 10
50	2,850 - -	- Killaloe to Tomgraney - - -	William Hampton	29 15 6
51	600 - -	Roman Catholic Chapel at Buttevant, County Cork.		—
52	2,350 - -	Road, Derrygonnelly to Manorhamilton -	George Halpin, jun.	16 2 -
53	3,000 - -	- Dublin to Mullingar - - - -	Jacob Owen -	29 13 6
54	1,050 - -	- Kilkenny to Piltown - - - -	R. D. Gibbons -	4 5 4
55	1,700 - -	- Cratloe Hill to Moy Hill, County Clare.	—	—
56	2,800 - -	- New Ross to Ballyane - - -	R. Beamish -	9 12 6
57	1,750 - -	Boyne Navigation - - - - -	H. H. Killaly.	—
58	750 - -	Road, Mallins to Gindore - - - -	John Richardson -	10 17 8
59	1,700 - -	Bridge at Belturbet - - - - -	John Fraser -	8 8 -
60	2,000 - -	Road, Carnew to Tullow - - - -	C. G. Forth -	18 - 6
61	9,000 - -	Bridge (Thomond) Limerick - - -	Jacob Owen -	24 3 6
62	1,600 - -	Road, Dublin to Dunleer - - - -	Charles Lanyon -	3 - 6
63	893 15 -	- Bailieborough to Moynalty, by Kells -	F. Dubourdieu -	35 - -
64	25,000 - -	Dublin Wide-Street Commissioners.	—	—
65	46,000 - -	Ecclesiastical Commissioners - - -	Under Special Act of Parliament.	
		STATEMENT of Grants:		
1	218 18 -	Fishery Pier at Rathcourcey - - -	B. D. Gibbons -	8 3 6
4	635 15 4	Road and Pier, Garrakennedy.	—	—
13	700 -	- Glenstal Mountains - - - -	R. Robinson -	6 5 6
18	2,340 2 6	- Donegal to Pettigo - - - -	John Stedman -	72 9 -
£.	355,765 13 10		£.	1,040 2 10

27 April 1835.

Jos. C. Walker, Account, O. P.W.

N.B.—The object of the Commissioners has been always to reduce, as much as possible, the expenses of the parties making applications for Loans; and many opportunities have enabled them to dispense with any charge for Engineers' investigations. On some occasions previous full Reports and Surveys had been made by Engineers of character on the same object, without relation to the Loan sought for; on others the work had been previously in progress with other funds, and the circumstances were well known to the Commissioners. A few small Loans would not bear such expense, and were admitted on the faith of strong testimony, resulting from inquiries made as to the great utility of the work. Those at or close to Dublin were under the immediate observation of the Commissioners and their Engineer. The expenses higher than usual were occasioned either by the extent of the undertaking or the necessity for making out new plans; sometimes both combined.

(No. 4.)

RETURN of the SMALL PIERS erected on the Coast of *Ireland*, either wholly or in part at the Public Expense; showing their present State and Utility; chiefly extracted from a Report made to the Lords of the Treasury, dated the 27th of February 1833.

NAMES of PIERS, and Where situated.	OBSERVATIONS.
WYSE'S POINT, near Dungarvan, county of Waterford.	-- This Pier is now finishing by contract, under the Commissioners of Public Works, and is likely to prove very useful.
COURTMACSHERRY, county of Cork.	-- A most useful Pier, not only for the protection of the fisheries, but also for the purposes of trade; several hundreds of tons of corn having been shipped from it during the last year for Liverpool and Scotland. Timber, iron, &c. brought in return.
CLONAKILTY, county of Cork.	-- Much used as a safety harbour by the small craft for several miles round the coast; useful also for the purposes of trade, 800 tons of coal having been landed here during the last year. The roads leading to it are reported to be very much neglected.
GLANDORE, county of Cork.	-- This Pier affords protection to about 20 yawls, of 3 tons each, engaged in the fisheries. It is also much used for the purposes of trade, the village being a thriving one, much owing to the exertions of Mr. Redmond Barry, on whose land manganese, of apparently good quality, is being raised. It is stated that nearly 10,000 *l.* has been expended on building within the last two years.
BALTIMORE, county of Cork.	-- A very useful Pier, executed by Lord Carbery, under contract with the late Fishery Board, partly from public funds and partly from funds contributed by his Lordship.
CAPE CLEAR ISLAND, county of Cork.	-- Affords very great protection to the poor islanders engaged in fishing, in all about 350 persons. The population is about 1,100 persons, for whom the island in good seasons supplies sufficient food; but in dry seasons the supply is insufficient.
LAWRENCE COVE, Bere Island, county of Cork.	-- A very useful fishery Pier, affording protection to 16 hookers of 12 tons each, and 90 yawls, of from 3 to 4 tons each, belonging to the island, and employing about 1,000 persons exclusively in the fisheries. Population of the island about 3,000. The inhabitants are described as wretchedly poor.
CASTLETOWN, Berehaven, county of Cork.	-- A Pier affording much protection to the fisheries. There are belonging to this port 4 decked boats of 20 tons each, 12 hookers of 12 tons, and 50 yawls of 4 tons each, affording employment to about 400 persons exclusively engaged in the fisheries. It is also much used for trading purposes, a district of ten miles being supplied from hence with timber, iron and mercantile goods generally. The roads connected with the pier are reported to be very bad. Copper mines are also working successfully at Allika, distant about four miles.
COOLAGH, county of Cork.	-- This work is much used for landing sea manure. Timber, slates, &c. are also imported. The surrounding district was entirely shut out from any communication till this pier was built. About six hookers, of 10 tons each, and 12 yawls, frequent it.
KENMARE, county of Kerry.	-- This Pier is described as of very great use for agricultural and mercantile purposes, but not of so much use to the fisheries. The town and country for several miles round it are stated to be in a very improving condition.
BALLINSKELLIGS, county of Kerry.	-- Much used by fishing vessels, and also for landing sea manure, from the use of large quantities of which the neighbouring country, for a distance of about 7 miles round, is improving much. The connecting roads are in very bad order. The inspecting commander of the coast-guard confirms this statement of our officers, as to the improvement of the district within the last few years, and attributes it to the same cause.
CAHIRCIVEEN, county of Kerry.	-- Useful both for fishery and agricultural purposes. About 400 persons derive partial employment from the fisheries; but being both farmers and fishermen, their attention is not given at the best seasons for fishing. The same improvement in the surrounding country is in progress here as has been before remarked on.
VALENTIA, county of Kerry.	-- The benefit derived from this Pier has been considerable, both to the fisheries and commerce. Its utility, also, as an asylum harbour has been frequently found; about 400 persons are exclusively employed in the fisheries, in which 100 Seine boats and 150 yawls are in use. Imports, chiefly from Liverpool, are iron, coal and timber; Exports, corn, butter and slates. The latter are of very fine quality, and the working of them gives employment to about 150 persons daily.

(No. 4.)—RETURN of the Small Piers erected on the Coast of *Ireland*—continued.

NAMES of PIERS, and Where situated.	OBSERVATIONS.
DINGLE, county of Kerry.	--Part of this Pier was originally built by the county, and afterwards added to, under the direction of the Fishery Board. Additions have also been made by the Customs Department. It is a most useful work, not only for mercantile and agricultural purposes, but also for the fisheries, which are carried on to some extent here, giving employment to about 2,000 persons.
BRANDON, county of Kerry.	--The boats used in the fisheries of this place are of the small class, being chiefly yawls and canoes, affording employment to about 250 men and boys. A large quantity of sea manure is landed here.
BARRA, county of Kerry.	--From the site of this Pier it is of no use, small craft not being able to approach it except at three quarters flood of spring tides.
KILRUSH, county of Clare.	--There are 20 small hookers, engaged in fishing and dredging for oysters, belonging to this port, affording employment to about 200 persons. The Pier is of much use in a mercantile and agricultural point of view. A small steam vessel plies between Kilrush and Limerick.
CARRIGAHOLT, county of Clare.	--A useful Pier both for the fisheries and trade. Six hookers, of 7 tons each, and upwards of 500 canoes or corrachs (small cots, some covered with horse hides, others with canvas paid over with composition,) give employment to about 400 persons in fishing, and to farmers occasionally. Turf shipped from hence.
KILBAHA, county of Clare.	--Owing to the facilities afforded by this Pier for landing sea manure, the country round it bears evident marks of agricultural improvement. It is also useful to the fisheries, in which about 110 persons are exclusively employed, and it is also an asylum harbour for small craft coming in from Loop Head, and other fishing stations, to the Shannon.
DUNBEG, county of Clare.	--This Pier is not much frequented by fishing boats. It is, however, very useful for agricultural purposes, and also as a place of refuge in hard weather for small craft.
SEAFIELD, county of Clare.	Can be approached at spring tides only by a vessel of 12 tons, but is capable of much improvement, and might then be very useful.
LISCANNOR, county of Clare.	--This Pier is situated on a very bold and dangerous shore, exposed to the force of the Atlantic, and has been several times much injured. It, however, affords considerable shelter to small craft, and is much used for the purposes of trade.
BURRIN QUAY, county of Clare.	--Thirty hookers, of about 12 tons, and 150 yawls, of 3 tons each, frequent this place, giving employment to about 500 men in the fisheries. Large quantities of corn, butter, pigs and sheep are shipped here. In hard weather, 100 sail of small craft have been known to take refuge in this harbour.
ST. KITT'S, county of Galway.	But little benefit is derived from this Pier, as none but small craft can approach it. No road leading to it.
DURASS, county of Galway.	--This appears to be a work more of private than public accommodation, although a small sum was contributed towards its erection from Government funds.
BALLINACOURTY, county of Galway.	Never properly finished, owing to which the works have been completely destroyed.
CLADDAGH PIER, in the Suburbs of Galway.	--A most convenient and useful Pier for the numerous fishing boats belonging to this place, in number about 140 sail-boats, from 12 to 14 tons, and 50 row-boats, of 5 or 6 tons each, employing near 2,200 persons. With all the advantages of good boats and accommodation, there are few places where the fisheries are carried on with so little enterprise.
STATE PIER, Galway Harbour.	This is a Work of much importance, as it affords considerable shelter to the docks and quays of Galway.
KILLENY PIER, Western Isles of Arran.	--There are 39 hookers frequenting this Pier, giving employment exclusively in fishing to about 350 persons. A large quantity of sea manure is shipped here for the shores of Clare and Galway; a coast-guard station; the officers of which have made some improvements in the Works, with the aid of funds from the London and Dublin Charitable Societies. The inhabitants are wretchedly poor.
COSTELLOE, county of Galway.	This is a Work of but little use, and in a state of dilapidation; not worth the cost of repairing it.
GREATMAN'S BAY, county of Galway.	--This Pier being left incomplete, was destroyed; subsequently, the materials were collected, and the Pier, for good part of its length, was re-built by Lieutenant White, of the coast-guard, and the collector of Galway, with funds from the Charitable Societies. It is found to be very useful.

(No. 4.)—RETURN of the Small Piers erected on the Coast of *Ireland*—continued.

NAMES of PIERS, and Where situated.	OBSERVATIONS.
SPIDDLE, county of Galway.	This Pier is but of little use, and is much out of repair.
BARNA, county of Galway.	--The Pier was originally built by a private individual in 1799, and re-built by Mr. Nimmo in 1822; but, being badly erected, in 1830 it was destroyed, and in 1831 was again partially re-built by the officer of the coast-guard and collector of Galway with the charitable funds. It is found to be very useful for the fisheries; and it is sheltered from the S. and S. W. gales, and the only safety harbour for small craft on 27 miles of coast.
NEW HARBOUR, Ardfery, county of Galway.	--A very useful Pier for landing turf and sea manure for a considerable district, as well as for affording shelter from the W. and S. W. winds, vessels frequently running up from the roadstead of Galway to shelter here.
CLIFDEN, county of Galway.	--This is a Quay-wall, partly unfinished. Captain Boileau, of the coast-guard, expended some of the charitable funds in adding to its length. Corn and butter are shipped here for Liverpool, and large quantities of sea manure landed. About 90 persons employed in fishing.
ROUNDSTONE, county of Galway.	--Thirty sailing-boats, averaging 10 tons, and 40 rowing boats, of 4 tons each, frequent this Pier. The former occasionally employed in bringing corn, kelp and turf to Galway. About 250 persons constantly employed between fishing and trading.
CLEGGAN, county of Galway.	This is found to be a useful Work.
CLOONISH PIER, county of Galway.	--Useful for the landing of sea manure, and shipping of turf for Galway. Mr. Seymour reports, that the "face of the country is fast improving from the advantages derived from the sea manure; particularly so since the manufacture of kelp was given up."
DERRY-INVER, county of Galway.	--This Pier is the only place of refuge in Ballinakill Bay. The country round it is rapidly improving, and the Pier is a very useful one for the trade and fisheries.
LENANE PIER, Killeny Bay, county of Galway.	About 30 row-boats, occasionally employed in fishing, frequent this Pier. Its situation is near the junction of the Westport, Clifden and Galway roads.
BUNDURRAGH, county of Mayo.	Of use for the landing of sea manure and sand, large quantities of which are used in improving the neighbouring mountainous country.
INNISTURK, county of Mayo.	--This Pier has fallen into ruins, and is a severe loss to the poor islanders, composed of about 80 families, chiefly dependent on the fisheries for support. The Pier was built on the only landing place in the island.
OLD HEAD, county of Mayo.	Not much frequented by fishing boats, but large quantities of sea manure are landed here.
CLARE ISLAND, county of Mayo.	--About 340 men and boys occasionally employed in the fisheries, being also farmers; large quantities of sea manure landed, and the island improving in agriculture. Much grain shipped here for Westport. Population about 1,600.
ACHIL SOUND, county of Mayo.	--This Pier badly executed, and never completely finished. There are 50 sail-boats, averaging 8 tons, and 100 yawls, averaging 2 tons each, which frequent this harbour, giving occasional employment to about 500 persons.
TARMON BLACKSOD BAY, county of Mayo.	--This is an extensive and tolerably well-built pier; 20 hookers, of 6 tons each, and about 100 yawls frequent it. Those persons engaged in the fisheries on this part of the coast are, generally speaking, farmers as well as fishermen.
SALEEN, near Newtown Bingham, county of Mayo.	--Little used as a fishing station, but considerable quantities of corn and potatoes are shipped here for Westport, and merchandize brought back in return. A small expenditure, in completing the inner dock, would make this harbour much more useful.
BELMULLET, county of Mayo.	--This Pier affords good shelter from the S. E. and W. winds; at three-quarters flood spring-tides a vessel of 100 tons can get alongside the Pier. Described as a good fishing station, but the fishermen not enterprising. The Pier is also of great use for mercantile purposes, the imports being timber, iron, slates, &c. in return for grain, and other agricultural produce. It is stated that from this small village, about 1,300 tons of oats were shipped for the English and Scotch markets last season. It has often been suggested to cut a canal across the narrow isthmus which divides Broadhaven and Blacksod bays, by which means a vessel could put to sea with any wind from either of the harbours.

(*continued.*)

(No. 4.)—RETURN of the Small Piers erected on the Coast of *Ireland*—continued.

NAMES of PIERS, and Where situated.	OBSERVATIONS.
KILLALA, county of Mayo.	--A good fishing station; about 360 persons occasionally employed. Much sea manure landed here. The country reported to be much improved since 1827. About 7,000 tons of barley and oats annually exported. Imports timber, iron, slates and coals (for malting); harbour tolls are charged. The Pier is an old one, and has been merely repaired with public funds.
PULLAGHENY, county of Sligo.	--The work was left in an unfinished state, and what had been executed is now down, the materials lying on the strand. There is a coast-guard station here; and if the works were completed, a vessel of 150 tons might run in at one-quarter flood.
ROUGHLEY, county of Sligo.	--About 200 persons occasionally employed in the fisheries at this Pier. Large quantities of sea manure also landed here. A coast-guard station. Nearest road to the Pier distant half a mile.
PORTNOE, county of Donegal.	--This Pier has proved of much protection to the boats frequenting it, as previous to its erection none could approach the shore with safety. With strong gales, however, from the S. W. it is unsafe. Large quantities of sea manure are landed here, and it is likely to be soon used as a place of shipment for corn. At spring-tides, vessels drawing 12 feet of water can lie alongside.
PORTMORE, county of Donegal.	This Pier, not yet completed, owing to the contractor getting into difficulties. Steps will be taken at the opening of the season, to expedite the work.
GREENCASTLE, county of Donegal.	This Pier completed and found useful, affording shelter from S. W. and S. E. winds.
CARRICKFERGUS, county of Antrim.	This Pier has been completed, and is useful to the fisheries, about 500 persons being employed in them.
PORTMUCK, Island of Magee, county of Antrim.	Much used by the fishermen, and also as a place of shelter. Vast quantities of lime stone shipped here for Scotland and various parts of the coast.
KIMMERSPORT, Ardglass Harbour, county of Down.	--This Pier is situated at the inner end of Ardglass harbour, and is of much use to the fishing vessels and other small craft. It has been much used for trading purposes, previous to the completing of the large Pier.
NEWCASTLE, county of Down.	--This is an extensive Pier, and can be used by a large class of vessels at high water. Imports,—coals, timber and slate. Exports,—oats and barley, and a large quantity of potatoes for Dublin and Liverpool
CLOGHER HEAD, county of Louth.	--This is a small Dock, partly natural and partly excavated; a passage has been cut through the beach for boats to enter it. It affords shelter from all winds, except the N. E. There are 7 smacks of from 25 to 40 tons each, and 20 row-boats, exclusively engaged in fishing; it is also much frequented by the fishing vessels of other stations.
BALBRIGGAN, county of Dublin.	--This is an extensive Pier. Some vessels of a superior description to those generally employed are engaged in the fisheries here, and the fishermen of this coast are much more enterprising than those on the western coast. It is also a very useful harbour for trading purposes.
LAMBAY ISLAND, county of Dublin.	Completed. It is a small fishing station.
ARTHURSTOWN, county of Waterford.	This Pier has been lately completed, and is likely to be very useful for export and import trade. It is open by good roads to an extensive district.

Office of Public Works, Dublin,
11 May 1835.

Henry R. Paine, Sec.

No. of Loan.	To Whom Made.	When.	AMOUNT In British Money.	Rate of Interest.	Instalments Repayable. Amount of Each.	Instalments Repayable. At what Dates Payable.	First When Due.	Final Period For Repayment.	Instalments in Arrear to 5 Jan. 1832. No.	Principal.	Interest.
			£. s. d.	£.	£. s. d.					£. s. d.	£. s. d.
1	Marquis Sligo and another	27 Sept. - 1817	921 18 9	5	64 10 8	1 Aug. 1819 & annually	1 Aug. - 1819	1 Aug. - 1833	1	64 10 1	28 8 5
2	Jocelyn Thomas	25 Oct - 1817	923 1 6	5	46 3 1	Annually 1 Nov. -	1 Nov. - 1818	1 Nov. - 1837	–	- - -	5 7 –
4	Navan Turnpike Commissioners	27 Nov. - 1817	5,538 9 3	6	332 6 2	ditto 1 Jan. -	1 Jan. - 1819	1 Jan. - 1835	15	3,705 12 6	2,274 7 6
24	Ditto	20 August 1819	3,046 3 1	5	553 16 11	ditto 1 Sept. -	1 Sept. - 1819	1 Sept. - 1824	3	1,286 14 10	559 8 4
53	Ditto	13 Oct. - 1823	923 1 7	5	307 13 9	ditto 1 May -	1 May - 1824	1 May - 1826	3	923 1 7	379 14 6
5	Wexford Corporation	31 Dec. - 1817	923 1 7	6	55 7 8	ditto 1 Jan. -	1 Jan. - 1819	1 Jan. - 1837	1	57 5 9	21 8 10
7	Earl Clancarty	25 Jan. - 1818	553 16 11	5	27 13 10	ditto 1 Jan. -	1 Jan. - 1819	1 Jan. - 1838	–	- - -	5 12 10
8	Portumna Bridge Corporation	31 Jan. - 1818	2,769 4 8	6	166 3 1	ditto 1 Jan. -	1 Jan. - 1820	1 Jan. - 1836	13	2,160 – 1	1,204 15 1
9	Nicholas P. Leader	20 Feb. - 1818	9,230 15 5	5	461 10 9	ditto 1 July -	1 July - 1819	1 July - 1838	2	981 16 11	226 18 6
107	Ditto	22 Nov. - 1826	10,000 – –	4	500 – –	ditto 1 Dec. -	1 Dec. - 1827	1 Dec. - 1846	–	- - -	—
12	G. Lambert and B. Maguire	27 April - 1818	461 10 9	5	64 12 3	ditto 1 July -	1 July - 1819	1 July - 1826	6	332 6 2	197 5 1
13	Cork Wide-street Commissioners	29 April - 1818	6,461 10 9	6	387 13 10	ditto 1 July -	1 July - 1819	1 July - 1835	} 2	1,236 18 6	717 2 3
28	Ditto	20 April - 1820	4,615 7 8	5	230 15 5	ditto 1 April -	1 April - 1821	1 April - 1840			
113	Ditto	4 Sept. - 1827	7,000 – –	5	350 – –	ditto 1 August -	1 Aug. - 1830	1 Aug. - 1849	2	700 – –	1,502 12 –
14	Hovenden Stapleton	14 July - 1818	1,846 3 1	5	92 6 2	ditto 1 October -	1 Oct. - 1819	1 Oct. - 1838	4	369 4 2	84 7 9
18	Mayo County Grand Jury	30 Nov. - 1818	7,703 14 –	5	385 3 8	1 May and 1 Nov. -	1 Nov. - 1819	1 May - 1833	3	1,155 11 –	168 13 7
40	Ditto	14 Sept. - 1822	2,221 10 5	5	111 1 6	1 March and 1 Sept.	1 Mar. - 1823	1 Sept. - 1837	2	221 15 2	88 8 9
52	Ditto	20 Sept. - 1823	477 18 6	5	23 18 –	1 May and 1 Nov. -	1 May - 1824	1 Nov. - 1838	–	- - -	10 7 4
21	Marquis Sligo and another	20 Feb. - 1819	1,956 18 2	5	98 – –	20 February - -	20 Feb. - 1820	20 Feb. - 1839	–	- - -	6 12 9
25	Owen M'Carthy	4 Sept. - 1819	2,769 4 8	5	138 9 3	1 October annually -	1 Oct. - 1820	1 Oct. - 1839	4½	627 10 4	200 – 11
27	Kerry County Grand Jury	6 Nov. - 1819	3,581 8 5	5	180 – –	1 May and 1 Nov. -	1 May - 1820	1 May - 1834	1	46 2 5	132 7 2
34	Ditto	29 Jan. - 1822	1,231 – 1	5	61 11 –	1 May and 1 Nov. -	1 May - 1822	1 May - 1836	–	- - -	48 7 1
37	Ditto	29 March - 1822	5,925 8 6	5	296 5 6	1 Nov. and 1 May -	1 Nov. - 1822	1 Nov. - 1836	–	- - -	250 7 11
51	Ditto	7 August 1823	3,390 14 11	5	169 10 10	1 Jan. and 1 July -	1 Jan. - 1824	1 Jan. - 1838	–	- - -	150 4 6
58	Ditto	1 Nov. - 1823	2,016 11 1	5	109 5 –	1 May and 1 Nov. -	1 May - 1824	1 May - 1838	–	- - -	85 18 7
71	Ditto	8 Oct. - 1824	1,270 13 2	5	63 10 8	1 March and 1 Sept.	1 Mar. - 1825	1 Mar. - 1839	–	- - -	53 17 3
29	Kilkenny County Grand Jury	2 Oct. - 1820	1,380 4 2	5	69 – 2	1 April and 1 Oct. -	1 April - 1821	1 April - 1835	–	- - -	37 8 –
35	Ditto	27 April - 1822	348 5 7	5	17 8 4	1 Nov. and 1 April -	1 Nov. - 1822	1 Nov. - 1836	–	- - -	13 13 11
43	Ditto	1 Nov. - 1822	507 19 –	5	25 8 –	1 March and 1 Sept.	1 Mar. - 1823	1 Mar. - 1837	–	- - -	18 7 –
57	Ditto	3 Dec. - 1823	923 1 6	5	46 3 –	1 May and 1 Nov. -	1 May - 1824	1 May - 1838	–	- - -	38 1 2
92	Ditto	3 Oct. - 1825	1,607 10 9	5	80 7 6	1 Feb. and 1 Aug. -	1 Feb. - 1826	1 Feb. - 1840	12	478 6 2	90 10 2
97	Ditto	8 May - 1826	1,818 9 3	5	90 18 6	1 Nov. and 1 May -	1 Nov. - 1826	1 Nov. - 1840	1	52 8 11	87 1 2
114	Ditto	15 Sept. - 1827	370 – –	–	18 10 –	1 Jan. and 1 July -	1 Jan. - 1828	1 Jan. - 1842	–	- - -	14 5 3
122	Ditto	27 May - 1828	348 – –	5	17 8 –	1 Nov. and 1 May -	1 Nov. - 1828	1 Nov. - 1842	–	- - -	37 1 7
31	Galway County Grand Jury	15 March 1821	3,499 17 5	5	175 – –	1 July and 1 Jan. -	1 July - 1821	1 July - 1834	–	- - -	26 10 1
93	Ditto	3 Nov. - 1824	571 16 11	5	57 3 8	1 March and 1 Sept.	1 Mar. - 1825	1 Mar. - 1831	4	182 18 –	3 16 6
33	Queen's County Grand Jury	9 July - 1821	830 15 5	5	41 10 10	6 Nov. and 6 May -	6 Nov. - 1821	6 Nov. - 1834	–	- - -	9 2 4
119	Ditto	4 Jan. - 1828	3,000 – –	5	150 – –	1 April and 1 Oct. -	1 April - 1828	1 April - 1841	–	- - -	30 17 6
36	Cork County Grand Jury	12 April - 1822	1,939 19 8	5	97 – –	1 Nov. and 1 May -	1 Nov. - 1822	1 Nov. - 1835	½	48 10 –	10 9 4
38	Ditto	3 May - 1822	2,546 12 5	5	127 6 7	1 Jan. and 1 July -	1 Jan. - 1823	1 Jan. - 1836	1⅛	150 3 –	13 9 5

(continued.)

(No. 5.)—PARTICULARS of Loans made by the late Commissioners under the 57 Geo. III. and subsequent Acts—*continued*.

No. of Loan.	To Whom Made.	When.	AMOUNT In British Money.	Rate of Interest.	Instalments Repayable.		First When Due.	Final Period For Repayment.	Instalments in Arrear to 5 Jan. 1832.		
					Amount of Each.	At what Dates Payable.			No.	Principal.	Interest.
			£. s. d.	£.	£. s. d.					£. s. d.	£. s. d.
74 to 80	Cork County Grand Jury -	29 Oct. - 1824	8,001 13 5	5	400 1 8	1 March and 1 Sept.	1 Mar. - 1825	1 Mar. - 1838	–	- - -	45 15 6
39	Cavan County Grand Jury -	21 Aug. - 1822	5,538 9 3	5	276 18 6	1 Nov. and 1 May -	1 Nov. - 1822	1 Nov. - 1835	–	- - -	—
42	Waterford County Grand Jury	22 Oct. - 1822	551 11 4	5	27 11 6	1 May and 1 Nov. -	1 May - 1823	1 May - 1836	–	- - -	—
50	Ditto - - - -	21 July - 1823	1,846 3 1	5	92 6 2	1 Dec. and 1 June -	1 Dec. - 1823	1 Dec. - 1836	½	41 - -	48 17 7
62	Ditto - - - -	10 May - 1824	674 17 10	5	33 14 10	1 Oct. and 1 April -	1 Oct. - 1824	1 Oct. - 1837	1	27 - -	6 6 1
88	Ditto - - - -	26 July - 1825	1,561 17 10	5	78 1 10	1 Dec. and 1 June -	1 Dec. - 1825	1 Dec. - 1838	–	- - -	13 9 -
115	Ditto - - - -	6 Oct. - 1827	14,899 18 10	5	745 - 8	1 Jan. and 1 July -	1 Jan. - 1828	1 Jan. - 1841	–	- - -	135 6 -
45	Grand Canal Company - -	15 Nov. - 1823	43,484 18 5	4	2,174 5 -	1 December - -	1 Dec. - 1827	1 Dec. - 1846	5	10,871 5 -	9,367 3 2
105	Ditto - - - -	17 Oct. - 1826	2,769 4 8	4	138 9 3	1 December - -	1 Dec. - 1829	1 Dec. - 1848	3	415 7 9	366 15 10
90	Ditto - - - -	3 Nov. - 1826	33,416 6 2	4	1,670 16 4	1 December - -	1 Dec. - 1829	1 Dec. - 1848	3	5,012 9 -	5,560 16 7
135	Ditto - - - -	11 Jan. - 1828	18,000 - -	4	900 - -	11 January - -	11 Jan. - 1831	11 Jan. - 1850	1	900 - -	945 1 8
46	Right Honourable D. Browne and others - - -	12 May - 1823	276 18 6	5	13 16 10	12 May - - -	12 May - 1824	12 May - 1843	1	13 16 3	12 2 4
47	Rev. E. F. Conyers - -	28 May - 1823	221 10 9	5	22 3 -	28 May - - -	28 May - 1824	28 May - 1833	–	- - -	7 - 1
48	Lord Bantry and M. Murphy -	23 Feb. - 1823	1,846 3 1	5	92 6 2	23 February - -	23 Feb. - 1824	23 Feb. - 1843	1½	138 9 4	269 9 2
49	Galway Town Grand Jury -	1 August 1823	2,769 4 8	5	138 9 3	1 May and 1 Nov. -	1 May - 1824	1 May - 1837	1	138 9 3	122 18 -
87	Ditto - - - -	22 July - 1825	553 16 11	- -	27 13 10	1 Jan. and 1 July -	1 Jan. - 1826	1 Jan. - 1837	2	55 7 8	28 18 -
54	Wicklow County Grand Jury -	13 Oct. - 1823	2,466 1 11	- -	123 6 1	1 May and 1 Nov. -	1 May - 1824	1 May - 1837	1	123 6 1	66 11 6
72	Ditto - - - -	11 Oct. - 1824	2,017 12 3	- -	100 17 7	1 March and 1 Sept.	1 Mar. - 1825	1 Mar. - 1838	–	- - -	47 3 11
130	Ditto - - - -	29 May - 1828	2,786 12 4	- -	139 6 7	1 Nov. and 1 May -	1 Nov. - 1828	1 Nov. - 1841	–	- - -	70 12 8
55	Leitrim County Grand Jury -	3 Nov. - 1823	3,405 18 4	- -	170 5 10	1 May and 1 Nov. -	1 May - 1824	1 May - 1837	–	- - -	98 5 4
104	Ditto - - - -	3 Oct. - 1826	3,323 1 7	- -	170 6 -	1 March and 1 Sept.	1 Mar. - 1827	1 Mar. - 1840	–	- - -	78 2 2
125	Ditto - - - -	6 May - 1828	1,061 17 3	- -	54 11 9	1 Oct. and 1 April -	1 Oct. - 1828	1 Oct. - 1841	–	- - -	57 19 5
128	Ditto - - - -	24 June - 1828	1,415 7 10	- -	70 15 -	1 Oct. and 1 April -	1 Oct. - 1828	1 Oct. - 1841	1	70 15 -	78 6 4
129	Ditto - - - -	24 June - 1828	1,703 14 2	- -	85 3 6	1 Nov. and 1 May -	1 Nov. - 1828	1 Nov. - 1841	1	85 3 6	94 - 10
56	Armagh County Grand Jury -	28 August 1823	923 1 7	- -	50 - -	1 May and 1 Nov. -	1 May - 1824	1 May - 1837	–	- - -	21 2 7
61	Limerick Bridge Commissioners	13 May - 1824	55,384 12 4	4	2,769 4 7	1 May annually, besides interest -	1 May - 1830	1 May - 1849	2	5,538 9 2	3,144 8 4
63	Limerick County Grand Jury -	4 June - 1824	2,806 3 11	5	140 6 2	1 Nov. and 1 May -	1 Nov. - 1824	1 Nov. - 1837	–	- - -	16 9 4
66	Drogheda Town Grand Jury -	15 June - 1824	148 8 4	5	7 8 4	1 Oct. and 1 April -	1 Oct. - 1824	1 Oct. - 1837	–	- - -	3 19 5
67	Cork City Grand Jury - -	24 June - 1824	7,649 2 3	4	382 9 1	1 Nov. and 1 May -	1 Nov. - 1824	1 Nov. - 1837	–	- - -	96 12 -
98	Ditto - - - -	3 May - 1826	4,900 11 -	5	245 - 7	1 Nov. and 1 May -	1 Nov. - 1826	1 Nov. - 1839	–	- - -	186 3 6
68	Rev. H. Pasley, &c. - -	12 July - 1824	276 18 5	5	13 16 11	12 July - - -	12 July - 1825	12 July - 1844	6	83 1 6	81 12 1
69	Roscommon County Grand Jury	27 July - 1824	5,309 10 9	5	265 9 6	1 Nov. and 1 May -	1 Nov. - 1824	1 Nov. - 1837	–	- - -	116 15 7
84	Ditto - - - -	20 May - 1825	3,665 10 9	5	183 5 6	1 Nov. and 1 May -	1 Nov. - 1825	1 Nov. - 1838	–	- - -	73 16 4
109	Ditto - - - -	27 July - 1827	800 - -	5	40 - -	1 Jan. and 1 July -	1 Jan. - 1828	1 Jan. - 1841	–	- - -	20 13 5
120	Ditto - - - -	10 Nov. - 1827	800 - -	5	40 - -	1 Feb. and 1 August -	1 Feb. - 1828	1 Feb. - 1841	–	- - -	23 15 11
134	Ditto - - - -	22 July - 1828	450 - -	5	22 10 -	1 Nov. and 1 May -	1 Nov. - 1828	1 Nov. - 1841	–	- - -	13 - 6

| | | |

Appendix, No. 3.

PAPERS delivered in to the Committee, by *Maurice FitzGerald*, Esq.

TABLE of Distance in British Miles.

1st. From *London* to *Valentia*.

By Bristol:		By Milford (Mail route):	
London to Bristol	120	London to Milford	260
Bristol to Cork	262	Milford to Dunmore	86
Cork to Valentia	90	Dunmore to Waterford	10
		Waterford to Valentia	140
	472		496
By Holyhead (Mail route):		By Liverpool (Mail route):	
Valentia to Limerick	90	London to Liverpool	208
Limerick to Dublin	117	Liverpool to Dublin Quay, 120 nautical miles	138
Dublin to Howth	9	Dublin to Valentia	207
Howth to Holyhead	61		
Holyhead to London	260		
	537		553
Through Killarney	13 more.		
Bristol to Valentia:		Liverpool to Valentia:	
Bristol to Cork	262	Liverpool to Dublin	138
Cork to Valentia	90	Dublin to Valentia	207
	352		345
By Milford (Mail route):		Glasgow to Valentia:	
Bristol to Milford	151	Glasgow to Belfast	132
Milford to Dunmore	86	Belfast to Dublin	102
Dunmore to Waterford	10	Dublin to Valentia	207
Waterford to Valentia	140		
	387		441

Distances from *Falmouth*.

		By the Course of Foreign Mails.
Falmouth to London direct	269	269
„ to Bristol	156	389
„ to Liverpool	325	477
„ to Glasgow	525	677

From *London* to *Halifax*, British Miles.

		B. M.
1st. Halifax to Lizard Point, 2,394 sea miles		2,755
Lizard to Falmouth		20
Falmouth to London		269
Total from Halifax to London		3,044 British miles.
2d. Distance from London to Halifax by Valentia, 2,165 sea miles, or		2,491 British.
Bray-head to the Ferry		7
		2,498
Valentia, by Cork, to London		472
		2,970
Halifax to London, 74 miles shorter by Valentia.		
3d. Valentia to Halifax, by Milford:		
Valentia to Halifax		2,498
Ditto, by Milford, to London		496
		2,994
Halifax, by Lizard, to London		3,044
Shorter by Milford		50 British miles.

Those

Those nautical distances being calculated upon the Rhumb Lines, are not the shortest which may be sailed. Where there is so great a difference of longitude, a considerable savingwill be made, by keeping nearer to the Great Circle, passing through the given places, which is, of course, the shortest possible. The Great Circle passing through Halifax and Valentia, or even Falmouth, runs considerably inland, both in Nova Scotia and Newfoundland, and, of course, cannot be sailed upon. This shows, what would not be suspected from looking at Mercator's Chart, that Cape Race ought to be the first place made for by any vessel bound from Britain to America, and especially a steamer.

From thence a direct course along the coast may be made to Halifax, and so on to New York, and from the same point to Quebec.

We may now inquire what the distance is in that way; viz. Coasting to Cape Race, and thence by the Great Circle to Valentia or the Lizard.

Halifax to Cape Race, 457 sea miles, or - - - - - 526 British.
On Great Circle, from the Lizard to Cape Race, 1,885 sea miles, or 2,169 „

		2,695
By the Rhumb	- - -	2,755
On the Great Circle	- -	60 less than the Rhumb.

Distances on the Great Circle from *Bray Head, Valentia*, to *Cape Race*:

1,672½ sea miles, or - - - -	1,924 British.
Halifax - - - - - -	526
	2,450
Valentia to Halifax on the Rhumb Lines - -	2,498
Ditto - to - ditto on Great Circle - - -	2,450
Saving on Great Circle - -	48 British miles.

To find Starting Course at Lizard, on Great Circle.

Cos. 47	826723
Cot. 46 40×	974719
Tan. 32 20×	
40 2×	801442
7 42 Lin.	127060
32 20 Lin.	728227
Tan. 47	043300
Co. 77 13½	
	644467

or W. by N. ⅛ N., which is nearly two points to the northward of the Rhumb. This course will lead within 60 miles of Valentia, and the Great Circle at its most northerly point will be n lat. 51° 7′, viz. at about 600 miles west of the Lizard.

In like manner the Great Circle course at starting from Valentia for Cape Race will be found about W. ¼ N., and will not attain a much higher latitude; so that it will be pretty near the object if we sail, say 10° long. to the westward, and then make for Cape Race, which will be found to give a distance of 1,685 miles, or only 12 miles less than by the Great Circle.

The whole distance then in British miles to Halifax, 2,465, instead of 2,498, as before found.

These observation are made, not to show that there is any particular advantage to Valentia in taking the Great Circle courses, for this is still more in favour of Falmouth, but mainly to point out the great advantage in either case of keeping the higher latitudes, instead of standing to the southward, as is the ordinary practice, and as would naturally appear to be the best from Mercator's Chart.

In fact, a Falmouth packet, if she adopts the shortest course, will be so near the coast of Ireland, that it would be little more than 20 miles round to call at Valentia on the way, as will appear from the following calculation:—

Lizard to Port Levan - - -	19 sea miles.
Port Levan to Dursey - -	200
Dursey to Valentia - - -	20
Sea miles - -	239, or 273 British.
Valentia to Halifax - -	2,498
	2,771
Lizard to Halifax - -	2,755
A round of only - - -	16 miles.

By the Great Circle - - -	273 to Valentia.
Valentia to Halifax - - -	2,450
	2,723
Lizard direct to ditto - - -	2,695
A round of - -	28 miles by Great Circle.

Whatever may be prudent with sailing vessels, there is no reason why a steamer should not adopt the most direct course possible, which is that on the Great Circle, and to such a vessel the fogs and currents near Newfoundland would be comparatively no great obstacle. At Newfoundland a steamer might lay in a supply of coals for 550 miles farther voyage; and as it may be frequently of importance to the colony for the packet to call there, we may inquire how far out of the way to Halifax by calling at St. John's, Newfoundland.

To St. John's - - - -	1,652 sea miles.
To Cape Race - - -	60
	1,712
Direct - - - -	1,694
A round of - -	18 sea miles, or 21 British.

If it was thought too great an interruption, we may call at Fermoez, which is only 20 miles from the Cape, and would be hardly any thing out of the way, or at Tres-passez, which is about as far to the west of the Cape, each of them being not more than three leagues off the direct course.

It has been proposed to sail from Falmouth by the Azores to North America; this may be equally as well done from Valentia, and with a saving of navigation.

Lizard	-	49°	57′	44″	M.P.	3,470	Long.	5°	11′ 55″
Fayal	-	38	32	30	M.P.	2,509	„	28	43 0
		11	25	14		961		23	31 5

982723
149527

166804

249550
835691

085241=1,217+17=1,234 to Falmouth.

Valentia to Fayal and Azores:

Valentia	-	-	-	51	55=3,657	-	-	-	10° 25′
Fayal	-	-	-	38	32=2,509	-	-	-	28 43
				13	23 1,148	-	-	-	18 18
					803	-	-	-	1,098

1,148 - - 059942
1,098 - - 040602

980660

141080
904716

045796=123 sea miles less navigation than to Falmouth, or 142 British miles, but 227 miles more of post route to London or Bristol, including 86 for Milford Passage. To Liverpool the quantity of navigation, adding the passage from Dublin, will be much the same, but there will be 120 miles less post road; and to Glasgow a saving of 104 miles of post route, and upon the whole 226.

Fayal to Halifax - -	1,607	Falmouth - -	1,607
Valentia to Fayal - -	1,111	Halifax - -	1,234
	2,718		2,841
Direct course - -	2,155		2,394
Round - - - -	553		447

The round is three days of a steamer.

DISTANCES in British Miles:

Falmouth to Halifax (ordinary course) - - -	2,775
Valentia to ditto by Cape Race - - - - -	2,470
Less navigation by - - - - -	305 miles.
London to Falmouth - - - - - - -	269
Falmouth to Halifax - - - - - - -	2,775
	3,044

London

London to *Valentia.*

	By Cork.	Milford.	Holyhead.	Liverpool.
	472	496	537	553
Halifax	2,470	2,470	2,470	2,470
	2,942	2,966	3,007	3,023
Saving	102	78	34	21

It is to be observed that a saving of 30 to 50 miles may be made in the Falmouth voyage by keeping nearer the Great Circle course to Cape Race; but it is uncertain for sailing ships.

It is upon the whole clear that the sea passage from Valentia to Halifax is 300 miles shorter than from Falmouth, and above 400 miles shorter than from Liverpool.

Halifax to the Northern Ports.

	By Valentia.	By Falmouth.		London.
To Bristol - -	2,822	2,931	Course of	3,164
Liverpool -	2,815	3,100	Foreign	3,252
Glasgow -	2,911	3,300	Mails.	3,452

So that the American letters from those ports are carried a round of 300 to above 500 miles. The passengers from 100 to 400 miles, and to have 300 miles longer voyage than by embarking at Valentia.

June 1829. *M. FitzGerald.*

Two Reports, very able and elaborate, have been made by the Commissioners of Revenue Inquiry on the subject of the English and Irish Post Offices. Those Reports comprehend the internal establishments and revenue. In the course of the inquiry a subject has incidentally arisen beyond these limits; viz. the postage on letters passing from these countries to foreign parts, and more particularly to our own colonies. The whole of this latter question is understood to be now in a course of inquiry before the Commissioners. However, as a complete correction of the whole system may be remote, it is respectfully submitted to the First Lord of the Treasury, that one particular branch may be considered as peculiarly deserving of His Grace's early attention; the more as it involves not only financial and commercial, but also political and military considerations. The branch referred to is the present mode of communication with our North American colonies. This subject in all its details will necessarily sooner or later be brought under the view of the Government. The present statement therefore, avoiding details as much as possible, would attempt to convey to His Grace the Duke of Wellington a summary of the principal circumstances resulting from the past and present state of the communication with those colonies, not from any doubt that His Grace is aware of the general importance of the question; indeed the Writer is sufficiently apprised of the contrary; but for the followig reasons:

1st. Because, although the last to be reported on, this branch, perhaps the most important, may not be treated in a political point of view by the Commissioners.

2dly. Because, independently of any general reform of system, a specific and immediate remedy can be pointed out for the particular case; and,

3dly. Because, in considering the evil and its remedy, many considerations which will not come directly within the province of the Commissioners of Revenue Inquiry, suggest themselves to the First Lord of the Treasury as affecting the question in the more comprehensive views of national economy.

1st. In point of policy, the inexpediency of having our intercourse with our colonies in any degree dependent upon a foreign state, need hardly be insisted on. Such inexpediency must be much aggravated when that foreign state is of a very commercial character, because not only political and ordinary correspondence, but commercial transactions in time of peace fall into a course which, in case of war, must be suddenly and inconveniently changed.

The degree to which England has become thus dependent upon the United States, not only in respect to all the intercourse with those States, but also with our own colonies, will, when known, astonish the public, and perhaps has but recently attracted the attention of the departments in this country. It is, to be sure, true that a King's packet has always sailed from England for North America and our Colonies, but until lately its course was by the West Indies and New York. On the absurdity of such a system it is unnecessary to dwell. A packet now sails for Halifax direct, the average arrival of which is two months. Such packets never convey original letters, mere duplicates or triplicates of commercial correspondence. All commercial and private correspondence between these countries and our colonies is conveyed by vessels belonging to, and built and manned by, subjects of the United States. All political and military correspondence requiring despatch passes through the same channel. This, in point of policy, is more preposterous, because Halifax is considerably nearer than New York, and because it must at all times have been a desideratum that our colonial correspondence should pass through the interior of our own colonies, not merely for the convenience and encouragement of provincial industry, but in order to reach the respecvtie seats of government by safe and independent routes. The more enlightened policy which now directs our Colonial Administration has recognized these views, by promoting the construction of roads for mail communication, avoiding the territories of the United States. The degree to which the commercial system of the United States is made

subsidiary to its State policy, and *vice versâ*, can only be appreciated by those who follow the combination through all its details. Its principle is unlimited aggrandizement through the means of monopoly and encroachment. With the ambitious character of the United States government, the present statement has however nothing to do, except inasmuch as it has contrived to draw within its grasp almost the entire of the intercourse with our own colonies, whether of correspondence or personal. The principal share of this species of commercial control centres in New York. Almost every point of America is more or less subservient to her commercial interests, and perhaps every merchant of that continent has correspondence with hers. Such ties, independent of the superior rapidity and accommodation of their vessels, induce almost all our colonists to touch at New York to and from Europe. Whether such dependence be or be not unavoidable (and mature consideration may suggest means of diminishing it, perfectly compatible with the most peaceful relations), at least it cannot be the purpose of the English Government to augment and strengthen it. That they do so, however, as long as they leave the communication through the King's packets so inferior to that by the commercial vessels of the foreign State (whether from an injudicious selection of the port of departure, or from other circumstances within their control), there can be no doubt. As long as the packets between Liverpool and New York afford the most convenient and quickest conveyance, personal and commercial interest will unavoidably give them a preference. The reciprocity of interest between Liverpool and New York, in maintaining this intercourse unchanged, and even unmodified, is fully known to both those great cities. The intensity of this interest will hereafter be more fully explained; but such an identity of commercial advantage will naturally overrule with the commercial body of Liverpool all views of national interest or general policy. At present it may be sufficient to lay down, that in maintaining the subserviency of the national and colonial interests to those of New York, Liverpool has but one feeling with New York, or, as was emphatically said by a very able American, "Liverpool is New York, and New York is Liverpool." It will hereafter appear not only that Liverpool has her immense interest in the direct trade with New York, but that by being the medium of communication with America generally, she obtains a relative superiority over every other port of the United Kingdom, corresponding to that which New York maintains over all rivals in America. But not only the parties directly interested in the packets above described, but the whole commercial and political influence of Liverpool, and its immense pecuniary resources, are wielded in perfect unity to counteract any the slightest change in a system which lays the general, commercial and political interests of the United Kingdom at the feet of New York.* But New York is the fountain head of the Anti-English policy, which professes to have no security for American independence but in the expulsion of English power from that continent. New York is perfectly aware that the superiority of our colonial harbours, the vast inland navigation of the St. Lawrence, the connecting canals now in progress, and the superiority of a ship compared to a boat navigation, will ultimately give us a preference of commerce upon the lakes and defeat their great enterprise, which sought to make New York the entrepôt of the Western States, by means of the Lake Erie Canal, and the "emporium" of America. If by availing ourselves merely of the natural advantages for a preferable communication between this kingdom and her colonies, this state of things may be reversed; if the legitimate internal revenue of our post-office can be enforced or extended; if our colonies can be convenienced in proportion to their nearness to the Mother Country; if inter-colonial lines of post-office communication can be facilitated and rendered productive; if all colonial correspondence can, without offence, be taken from the vessels of a foreign and jealous rival State, and conveyed in English vessels, not only more safely but profitably; if even a considerable portion of the United States correspondence may be attracted through the same channel; if the political and military intercourse with our colonies can, not only without additional expense, but with considerable saving, be placed on the best footing which the nature of things will admit of; are these not motives in common policy to make some effort on the part of the English Government, even though New York, through Liverpool, should grumble at such a measure of national policy? But if New York on the other side, and Liverpool on this side, should dislike any infraction of their monopoly, a measure dictated by national interest, would be hailed as extending impartial accommodation to the other great commercial towns of the kingdom; to Glasgow, to Aberdeen, to Hull, to Bristol, to Belfast, to Dublin, to Cork, and though last, not least, to London: whilst on the other side, Boston and Baltimore and Charlestown, and other great commercial cities, would gladly rescue themselves from the thraldom in which they are held to New York;† by which relief, not only their trading interests, but the revenues of their respective States, would be considerably advantaged. The advantages of dealing with a free port like Halifax are beginning to be duly appreciated by the independent towns of the United States. The fair policy of cultivating those distinct interest is obvious.

For

* *Vide* Report on Lake Erie Canal, by the late Governor de Witt Clinton.—There is a copy printed in the Report of the Emigration Committee, under the title of "Reports from the Commissioners of Inland Navigation in America," in the Appendix.

† Whilst it was in contemplation to establish a communication by steam from the west of Ireland to Halifax, the most sanguine encouragement was held out from Boston; a Company was formed there of the most leading commercial men, who undertook the building of three steamers to meet the Company's vessels at Halifax; and the Legislatures of Canada and Nova Scotia made grants with the same purpose, to continue the communication by steam to Quebec.

For any confirmation of this policy, the writer can confidently rely on the Duke of Wellington's general knowledge of our colonial interests, and on the opinions of Sir G. Murray, Sir James Kempt, Sir Howard Douglas, and our other governors.

2dly. The decided preference of communication with America, amounting almost to monopoly, enjoyed by Liverpool, arises from the combination of personal convenience with the "course of trade."

The New York packets, of which there are three distinct lines, viz. a weekly packet, a fortnight packet and a monthly packet, convey choice goods as well as passengers. They are very fine sailing vessels, with excellent accommodation, supplied with French wines duty-free, and every comfort. The persons who generally cross are more or less commercial; they make their last arrangements of business at Liverpool, and make their passage with the advantage of society. A return obtained through the Treasury, made the number of passengers leaving Liverpool by those vessels in the year, between 5,000 and 6,000, thus giving an annual average business of above 11,000. The cabin charges are 35 guineas. From a similar return, the number of persons who sailed by His Majesty's packets from Falmouth for all parts of the world, amounted in the year to 240. Yet Falmouth must be considered the best English station for a packet to the westward. The King's packets are very well found in every respect, and afford excellent accommodation. It is, however, pretty obvious that for a passage to America they cannot compete with those from Liverpool. A Nova Scotian returning from England will sail from Liverpool, and find his way from New York to Halifax. All the Canadians pass to and fro through New York; but in order to justify the continuance of the King's packet between these countries and our colonies, it should be put upon some footing which may enable it to carry letters; and surely it is desirable that its expense should be diminished by encouraging passengers to make use of it, and by rendering it subservient as far as possible to Government objects. But to carry letters and passengers, it must obtain a decided average superiority over the New York packets. Such superiority could not be obtained by a King's vessel sailing from Liverpool; the Americans can build cheaper, sail at least as well, furnish supplies on much cheaper terms, and above all, by carrying freight of commerce, can tempt a passenger by conveying his choice goods at a low rate. To create a competition at Liverpool, would be, therefore, incurring the expense merely for competition sake, with a certainty of being beaten. To enable a King's packet to succeed in carrying letters and passengers, it must carry both more expeditiously and the latter as cheaply, and if that superior expedition be combined with much greater safety, the King's packet will by the very interests of commerce, take away letters altogether, and passengers in a great proportion from the New York vessels. The means of obtaining such superiority for a King's packet are pointed out by geography and by experience. Now that the islands are united, geography would say, connect this kingdom with its colonies by the nearest points which are suitable. Now that the revenues of England and Ireland are consolidated and its post-office establishments about to be identified; now that lines of mail-coach roads reach the extreme points of the kingdom, it surely becomes advisable that such great public works should be rendered available towards the general revenue of the State. It is self-evident that the longer the line of internal conveyance over which any given letter passes, the more it pays to the post-office revenue. Provided a letter proceed in a direct line of its destination, it is the interest of the writer, both for rapidity, certainty and safety, that it should move as far as possible by land instead of by sea. If on the average transit considerable reduction of time can be obtained, every commercial man would willingly contribute an increased taxation on his letter; indeed there is no imaginable taxation which a merchant would not in common sense incur, to insure superior despatch. But His Majesty's mails can now reach the extreme west of Ireland at the rate of 10 miles an hour. A letter for instance from London by Holyhead and Dublin, at present reaches Valentia in 92 hours, from which may be deducted 10 hours' delay in Dublin and 12 at Tralee; so that a letter in ordinary rate can reach Valentia in 70 hours. The route by Bristol and Cork is 65 miles shorter; either line may be considerably abridged. But when placed at Valentia, you are geographically speaking 10½ degrees west of London, 5 west of Falmouth, and above seven west of Liverpool. But these geographical parallels afford inadequate data for comparing sailing distances. The experienced American captain considers that when he has reached the parallel of Valentia from Liverpool, nearly half his time and all his danger is passed. His great delays and dangers are in the Channel navigation. We will, however, only assume one-third saved. The average passage of the New York packets, out, from land to land, is 41 days, and from New York to Liverpool is 25. One-third deducted would amount to 13 days 16 hours, which would be saved on the outward passage, and 8 on the homeward. Allowing 36 hours for the conveyance from Liverpool to Valentia, the difference on a Liverpool letter would be above 11 days out and above 6 days home. But from all other parts the difference would be more considerable, which superiority would necessarily command all correspondence. There can be no doubt that the time allowed of 28 days out and 18 home would be ample allowance for average voyages between Valentia and New York. But by the supposition, we have nothing to do with New York. The passage would be between Valentia and Halifax, and the calculation is only introduced to show that United States people from several ports, especially Boston, and all our colonists, would find a decided advantage in preferring the King's packets. All commercial correspondence would be insured. It is supposed that 7,000 letters per packet leave Liverpool for New York. This comprehends all the English and a great deal of continental correspondence. But nearly the whole of it escapes the internal postage, being customarily conveyed in packets or boxes to

Liverpool. By an arrangement which should secure to the King's mails an unquestionable priority of delivery in America, all the commercial correspondence of the United Kingdom would be necessarily attracted to that channel, and it is worthy of consideration that almost the entire of it would pay long lines of internal postage. There is good ground for believing that the same cause would draw into the King's mails a great mass of European correspondence which now passes by other ways. Every passenger likewise who has regard to his comfort and safety would prefer the shortest passage of the ocean. The direct sailing distance saved by starting from Valentia would be above 300 miles compared to Falmouth, and above 400 compared to Liverpool, that is, 600 and 800 miles upon the voyages. But when the delays within the Channel from winds and especially from currents be considered, the average distance would be more than doubled, and the wear and tear of 600 or 800 miles per passage would form a serious amount in the expense of a packet. The remedy proposed is, that the North American packet should sail from Valentia. The internal effect on correspondence would be, that letters from every commercial town in the kingdom could travel by mails, directly in the line of their destination, with the greatest possible expedition; and thus the advantages of commercial communication be fairly and impartially distributed over all points, according to their relative situations. A letter from Glasgow would move by Belfast and Dublin to Valentia on the shortest geographical route to North America. So, a letter from Bristol by Cork to Valentia, a letter from London either by Bristol or Holyhead. On the return of correspondence, by the establishment of a post-office at Valentia, letters of commerce might be speeded directly to their respective destinations, to the great convenience of commerce and improvement of the revenue. At the station proposed, no harbour expenses would be to be incurred. A packet could always lie afloat and be at sea at once. The total outlay would be in an office for a post-master. It is respectfully submitted therefore, that by the transfer of a North American packet from Falmouth to Valentia great practical benefit would be derived, in point of commerce, of revenue, and of political intercourse with our colonies.

The particular harbour is pointed out on the grounds of its being the most westerly, the most accessible, and the safest.

3dly. If the advantages previously pointed out be admitted, they would justify, on the part of the Government, a very considerable expense. It is, however, demonstrable that they would not be productive of expense. The difference of wear and tear, of time, and of casualty, between Valentia and any English harbour, would constitute a very large item of saving. In point of danger the difference is so great, that a commercial vessel sailing from Valentia, would hardly think of insuring, except for what it might incur at the other side of the ocean. The proposition, moreover, is to convert an unproductive into a productive packet; unproductive either in letters or passengers, into one productive in both, and leading by the change to a great increase of the internal post-office revenue. It is confidently asserted, that a majority of the passengers of the better class, between America and Europe, would in such case avail themselves of the King's packet. Twenty guineas passage from Valentia to Halifax would pay better than thirty-five from Liverpool to New York. The journey from Liverpool to Valentia would be under 5*l.*, and from Halifax to New York much less; so that an actual saving would be made to passengers. A mercantile man proceeding from Liverpool, and having taken freight from thence to New York, would generally have an advantage in preceding the arrival of his cargo; and thus even the interests of commerce would tempt passengers from the New York traders into the King's packets. But the benefits of such superior rapidity would tell upon the colonial postage, and insure a revenue on the Canadian and New Brunswick correspondence, by the lines of road now constructing in those provinces between Halifax and their respective capitals, rendering the whole independent of the United States. It is evident therefore, in a post-office point of view, not only a saving would be effected, but new sources of profit created.

The Duke of Wellington will naturally take into his view other important sources of economy, to which the measure proposed may be made instrumental. It would be important to ascertain what may be the ordinary expense of reliefs and detachments going to and from our North American Colonies? What the average time in which they are conveyed? What the sickness and losses consequent thereon? What the average time lost at places of embarkation in England before vessels can sail for such purposes.

No one can so well as his Grace appreciate the benefits of an improved system for the periodical transport of soldiers between this kingdom and its colonies. By the proposal, troops in divisions or detachments would pass in the shortest practicable time. It may be safely calculated that in the average troops could be delivered, if expedient, from Ireland to Halifax in 24 days, and conveyed home in 14. In time of war the proposed packet line would be wholly out of the range of enemies' cruisers, and even if casually met in the ocean, the packet would derive advantage from having troops on board, which would probably be the case in general, from the frequent passage of detachments. It is further suitable to the routine of service that troops should embark from Ireland, and advantages would be derived to military arrangements by vessels sailing at stated periods. Some further considerations respecting this part of the question are respectfully submitted to the Duke of Wellington in a separate statement.

All reference to the comparative merits of steam packets and sailing packets, for intercourse with Halifax is omitted in the preceding argument, because that question depends upon other considerations. If, however, steam should be preferred, as the principal difficulty consists in the conveyance of fuel, no doubt can exist that the passage should be abridged as much as possible, and that the danger of currents which embarrass steamers in the lower parts of the Channel navigation should be altogether avoided. If the Government should

once

once give a right direction to the colonial intercourse by selecting a proper packet station, and should then prefer to contract for steam vessels, no doubt private enterprise would be found ready to undertake it. It is, however, probable that on full consideration of the case in all its bearings, the Government will deem it its interest to effect a colonial steam connexion by an independent establishment.

The question whether a foreign post-office should be in London, or in each case at the most convenient port of departure, is an important one, and will probably ere long be fully considered with advantage to the revenue. But the more limited question, whether an American post office should be in London or at the most convenient port of departure will not admit of doubt. It may be thus illustrated.

A letter destined for the United States or our North American Colonies, in order in the one case to reach Valentia direct, in the other to reach the same parallel of longitude *viâ* London and Falmouth, merely stating the specific comparative distances in each case, viz.

	Miles.		Miles.
From Liverpool to London - -	206	From Glasgow to London - -	405
From London to Falmouth - -	269	From London to Falmouth - -	269
Falmouth to parallel of Valentia -	300	Falmouth to parallel of Valentia -	300
	775		974
Liverpool to Valentia direct - -	345	Glasgow to Valentia direct - -	441
Difference - -	430	Difference - -	533

	Miles.
Bristol to London - - - - - - -	120
London to Falmouth - - - - - - -	269
Falmouth to parallel of Valentia - - - - -	300
	689
Bristol to Valentia direct - - - - - -	352
Difference - - -	337

These differences would be doubled in the correspondence and the difference of time. Comparing sailing with mail-coaches, would be in a much greater ratio; hence a foreign post-office in London never can obtain American letters; they will always go by the merchant ships in preference. The measure of the direct lines to an American post-office properly placed, would be a measure of the increase of the post-office revenue; *ex. gr.* every letter from Liverpool would pay 207 miles of internal postage.

June 1829. *M. FitzGerald.*

AN ABSTRACT of some COMMUNICATIONS made to His Grace the Duke of WELLINGTON in the year 1829, relating to PUBLIC WORKS in *Ireland.*

THE general opinion has long demanded reformation of the system under which Public Works have been administered in Ireland.

Public Works as hitherto conducted in Ireland may be classed under four heads.

1st. Such as have been constructed by special grants from Parliament.

2dly. Works undertaken by the authority and at the expense of the several Revenue Departments heretofore existing in Ireland.

3dly. All works executed under Grand Juries.

4thly. Roads and Bridges constructed under the direct authority of Government by public engineers.

There also existed a temporary authority in the late Fishery Board, to aid in the formation of piers and harbours. Private Acts of Parliament are likewise occasionally obtained for similar objects. In each of these several branches, except the 4th, considerable abuses have been acknowledged to exist.

Parliamentary grants seem to have been made with shameful ignorance of their objects and a prodigality of expenditure only to be rivalled by the insufficiency of their maintenance; most of such works accordingly no longer exist.

The wasteful expenditure in revenue buildings and other works under the old Board need now only be adverted to as warning for the future.

The largest and most important branch of expenditure on works is that under the Grand Jury Laws.

The uncontrolled power of taxation vested in Irish Grand Juries, not justifiable on any sound principles, has led in practice to abuses which have excited general complaint.

The power exercised by an irresponsible and single body, not necessarily involved in the taxation it levies, must in its nature have been abused. The amount of money levied in the last 30 years by grand juries must exceed 18 millions; an immense sum, which, judiciously and economically applied, would have advanced Ireland to a high degree of improvement.

No doubt grand jury expenditure has afforded fine main lines of communication, and the cross roads are better than those of more advanced countries; but the result leaves an impression of extensive misapplication of the fund. All roads under grand juries could be better and more economically made and repaired. The management of bridges is still more

more defective. It may be admitted that within the last few years, from the improved mode of selecting sheriffs, grand juries have been more impartially constituted, and their powers more creditably administered. But in the system itself there are inherent defects, beyond the correction of grand juries, however well constituted or disposed. These principally arise from ignorance and temptation to corruption in the parties employed.

The exercise of those powers by grand juries clashes and interferes mischievously with their proper functions as part of the criminal judicature of the country. But supposing sufficient leisure during an assizes, which is not the case, the subjects to be dealt with being strictly of a professional nature, requiring a knowledge of engineering, are beyond the competence of country gentlemen, however respectable. A public work being thus adopted in ignorance, its execution is devolved on still more incompetent parties.

The execution of a new line of road or the construction of a bridge is committed to some farmer enjoying the patronage of a grand juror; if more skill is expected, it must be from the employment of a regular road jobber. No adequate check is applied either to the execution or accounting for the work. As is customary in Ireland, an *affidavit* is substituted for strict investigation of the essential parts of the transaction. Nearly a million of money is levied annually by grand juries, of which three-fourths may be considered applicable to public works and charities, no part of which, either in the estimating, the execution or the accounting, is controlled on any rational principle. In one essential point, namely, the employment of human labour, the practice under the Grand Jury Laws is strikingly deficient. A sum of nearly half a million, annually applicable to "Works," ought to employ many hands. It would seem as if the operations of overseers under presentments were conducted with the least possible amount of human labour; their interest prompts a preference of machinery as far as is practicable. These abuses have called forth animadversion from almost all authoritative bodies; the judges on circuit constantly complain of the abuse of the power of grand juries, and the insufficiency of legal control on those powers.

The laws and practice have been subjected to investigation by successive Committees of the House of Commons; a reform of the system has in all cases been recommended, though no sufficient specific remedy has been pointed out. Grand juries themselves, by calling on the Government for interposition through officers of its own appointment, acknowledge the expediency of some change in the mode of conducting public works. Considerable difference of opinion exists as to the policy of continuing in grand juries the powers of taxation; it will however on all hands be agreed, that if they are to be continued, some more effectual checks should be put on their administration; the evils of the system are not limited to its administration; the taxation is levied in violation of all sound principles.

It is a land-tax levied on the occupant, without reference to the value of his interest; it is grossly unequal in the assessment. The mode of levy admits of fraud and partiality; the owner of the land, except inasmuch as he is also an occupant, escapes the tax altogether. It acts as a premium on non-residence in great proprietors. No qualification of property is required for a grand juror exercising unlimited taxation; in fact, a grand jury might consist of persons not holding an acre of ground in actual occupation, authorized to tax every acre of a country *ad libitum*. This is an extreme case, but it is certain that the taxation by grand juries is viewed as a fertile and odious means of jobbing and extortion.

The habits arising from the abuse of grand jury patronage are peculiarly calculated to degrade the gentry in the estimation of the people, and to corrupt the lower classes concerned in the execution of the works.

The fourth expedient, viz. the employment of Government engineers to execute particular works, has been attended with signal advantage. Many barren tracts of country have been opened up by lines of communication, enhancing greatly the value of property, and exciting new sources of independent industry. Those works undertaken in reference to local distress and particular emergencies, have been attended with permanent benefit to the country; facilities have been afforded for the diffusion of the inexhaustible natural manures so profusely furnished throughout Ireland; the habitations of the farmers have been improved, their comforts increased; a gradual accumulation of farming capital is taking place. These salutary effects from a judicious execution of public works are developed in the reports of the engineers employed under the orders of the Marquis of Wellesley, Messrs. Griffith and Killaly in the South, Mr. Nimmo in the Connemara District, and more specifically in that of Mr. Kelly, employed under Mr. Griffith in the completion of those grand lines which traverse the large tract, previously inaccessible, which lies on the borders of Cork, Limerick and Kerry.

Such was the advancement of individual prosperity amongst a population theretofore idle, dependent and turbulent; even before the works were completed, so intensely were the people employed in their works, that he could not procure them to work for the public, although at the commencement he had been overwhelmed with demand for employment.

Here was a fund of independent industry, created as it were through a district of 640 square miles, which may maintain and occupy its population for a century. With such improvements the interests and exertions of landlords will go hand in hand. But although those expedients for occasional employment have been attended with more than temporary benefit to the country, they can never be safely contemplated as furnishing a permanent system for the management of public works.

The employment of civil engineers on their own responsibility, both to advise and execute, and also to account for public money, is not admissible either on sound general principles or on reference to the practical objects in view.

Engineers are essential to any efficient system, but they must be confined to their proper sphere; their *time* would be sufficiently occupied in planning, estimating, inspecting works in progress, rigidly scrutinizing execution; they should not be contractors nor accountants, but used as a necessary check on both. No argument can be drawn for the skill and integrity of individuals in the adoption of a general system in which an organization of checks on every department affords the best chance of perfection. It is further highly inexpedient that the authority to execute works at the public expense should attach to any individual political officer of the Government.

Such officer cannot have leisure, and probably not the qualifications, for so peculiar a department, and if concerned in patronage, would unavoidably be accessible to political influence.

The real authority would in all such instances vest in the engineer. Moreover, nothing can be more desirable to the Government than to be exempted in its political capacity from a responsibility which it cannot exercise with credit to itself or advantage to the public; therefore, if the Government is to act in the case, it should be through some competent and responsible department.

In considering what system it may be desirable to adopt, reference should be had to our past practice, in order to avoid acknowledged errors and abuses. It is evident, that in no branch of our public works has due precaution been taken, by deliberate inquiry beforehand, to establish the utility of works; neither has sufficient skill nor economy been used in their execution, nor has the expenditure been subjected to sufficient audit.

In the Parliamentary grants, the purpose was political favour and patronage, rather than utility, and in consequence some of the works have ceased to exist (as the harbour of Rutland, in Donegal), and others are unproductive. Our principal canal stands, a model of ignorance and wasteful misapplication of money. The formation of mail-coach roads under Mr. Forster's Act, though affording in the end fine lines of internal communication through Ireland, was originally conducted without sufficient previous examination of the country, and without adequate checks on the execution.

New surveys in consequence became necessary in many instances; extensive alterations of lines were made at considerable expense, and the execution of the works was in others so faulty, that entire lines required to be made a second time. No reasonable mode of account was applicable to this expenditure, and the vast sum of 439,000*l.* was discharged on the mere affidavits of "overseers."

In the great national works, such as Howth Harbour, fatal errors have occurred from want of sufficient previous inquiry; in that instance half a million has been expended with little advantage of convenience or safety. After inclosing a basin, it was found necessary to excavate from the solid rock sufficient depth for mooring vessels. It is understood that the harbour should have been to the southward of what is now the southernmost breakwater; all this would have been obviated by a more accurate previous investigation and by consulting mariners.

In such cases, as well as in the application of aids from the consolidated fund and other grants for public works, the authority has been vested in occasional commissioners, very respectable, probably, but wholly incompetent to the administration of such a difficult task.

The execution, therefore, depends on the skill and integrity of the engineer. Civil engineering has made rapid progress, and is carried to great perfection in Ireland. Country gentlemen, conscious of the inefficiency and abuses of the old management, have sought to obtain the aid of engineers in almost all considerable undertakings under grand juries, and applications have extensively been made to Government for the appointment of "County Engineers."

The works carried on in the distressed districts have further established the preference for the employment of professional engineers.

On a review of the practice in Ireland under these several heads of expenditure, it is evident that no well regulated system exists for the administration of public works. The principles which should regulate public aid for such purposes, may be thus stated:

1st. There should be a deliberate preliminary examination of the grounds for any application for public money; the work proposed should be considered not merely in reference to its particular utility, but in comparison with other works suited to the same end, for which competition should be encouraged by publicity.

2dly. When the proposal of a work is deliberately sanctioned, the plans and estimates should be subjected to a further publicity and competition.

3dly. The entire progress of the execution should be placed under a responsible inspection, and accompanied by a concurrent account.

4thly. The completion should be strictly ascertained, and the preservation and maintenance of the work should at once vest in some defined and responsible body.

None of those principles have been hitherto applied on the part of the public to the management of works in Ireland; yet a private individual would be deemed imprudent who involved himself in an expensive undertaking without some such securities. Even limiting our views to the existing expenditure on public works, it appears that some direct interposition of Government is necessary. A sum equal to nearly one-fourth of the entire revenue of Ireland is levied by a direct tax on land, without any reasonable check as to the efficiency or economy of its expenditure; this, which is viewed as a fertile source of abuse, might, under an improved system, be rendered an efficient instrument of national improvement. It forms a serious item in the resources of the country, and should not be suffered to run to waste.

If such interposition be required even under the present system, it becomes still more necessary in reference to the prospects before us. It is required for the "*employment of the people.*" It may be said, and it is said, that in such matters the interposition of Government is unnecessary and mischievous; that if there be redundancy of labour, capital will find its way to correct the inequality, and that private speculation will afford the remedy. To this philosophy it is a sufficient answer, that Ireland, neither in individuals nor in communities, possesses capital for such purposes; that political considerations impede its introduction from England, and therefore, that such abstract principles, however efficacious in England, amount to an interdict on improvement in Ireland, Is it justifiable of the Government to abandon this great subject to chance?

No doubt can exist, that on the model of the Roman Law, the Sovereign exercised the duty of constructing and maintaining the internal communications, such as they were, and some of these formed by the Romans remain extraordinary examples of elaborate construction of strength and durability.

The construction of castles, of harbours and ports, was distinctly among the duties as well as prerogatives of the Sovereigns in these countries, and the taxation for those purposes was part of the "trinoda necessitas," from which no species of property nor rank of persons was exempt; it was by statute that the powers and duties of forming and maintaining roads and bridges was devolved on local authorities. By the 22d Henry VIII., roads were devolved on parishes, and bridges on counties; so likewise the rights of the Crown in ports and harbours were from time to time granted and assigned to corporate bodies for their *custody and maintenance.**

In Ireland sufficient authority was vested in grand juries for the construction of roads and bridges; but for the construction of ports and harbours no adequate powers seem to have existed in any body. Occasional grants from Parliament have consequently in all such instances been resorted to. We may except the very limited authority before adverted to as vested in the late Board of Fisheries; yet nothing was more important to Ireland, nor is any thing still more wanting than the construction of havens and ports. To the effectual means afforded to Scotland for such purposes, may be traced much of the rapid progress of that country in improvement. The various and complicated evils arising from deficiency of employment for the Irish population, has at length attracted the attention of all reflecting persons; it is an evil frightful in itself as affecting the internal condition of Ireland, and its baneful effects have gradually extended themselves in a degree seriously injurious to the working classes of England.

A change then becomes indispensable, and that which public clamour would indicate is, at least, "some modified system of Poor Laws" for Ireland; to this point it is now attempted to direct all the prejudices of England, and in Ireland it will be made a topic of popular excitement by persons who do not desire to succeed in accomplishing it.

It is incumbent on those who administer the government deeply and cautiously to weigh all the circumstances which are involved in this subject, before they concur in adopting for Ireland a system, under which, in the opinion of some of the wisest men, the prosperity of England is breaking down; which, if suitable to England, is, of all countries on earth, least adapted to Ireland, and the administration of which would, in the existing state of that country, be utterly impracticable.

If according to the modern construction of the English Poor's Law, a right were created to *demand* labour or support, millions in Ireland would at once throw themselves "on the parish." Every evil which arises in England would be tenfold aggravated in the execution of such a system in Ireland. Mr. Peel was perfectly right in saying that "Ireland did not possess the machinery for Poor Laws."

To a person really understanding the question, it is not difficult to demonstrate that Poor Laws would neither remedy the miserable condition of the population of Ireland, nor diminish the migration of Irish paupers to England. The most plausible shape in which the Poor Law can recommend itself is a provision for the "aged and infirm."

Nothing can be more pleasing to the benevolent mind than to realize the purposes of Providence in aiding those that are not able to labour for themselves.

But in a political society, the first question is, does a necessity exist for such a legal provision from the state? If there does not, should we seek to disturb the habit of society in that respect? The purpose could only be to apply the supposed relief to the lowest class of persons.

Many circumstances demand consideration before we meddle with the existing state of things in this respect.

1st. There is in the native Irish character the strongest possible attachment to "*kindred*;" such a case is rarely known as the throwing off or neglect of an aged or infirm relative; we should pause morally before we cut upthat instinct. Nothing can be more interesting and amiable.

The collection of all ages in an affectionate family circle affords no mean mitigation of sufferings, physical and moral, in the impoverished state of the lower class of Irish.

2dly. To those who have penetrated the real life of those poor people, it is notorious that the counsels, the admonitions, the natural prudence of the aged, exercise a salutary influence on the younger members of families, brought up generally in a spirit of obedience to parents. The loss of such influence would be mischievous.

3dly.

* It may be further stated that it is to the interposition of Government, and to the wise acts of some of our greatest Kings, to an advance of public money, and to the creation of establishments, that we owe the origin of some of the most valuable manufactures in England.

3dly. Although the appearance of the poor in Ireland is miserable, yet in the essentials of food and fuel, there is seldom so much want experienced as that appearance would imply; nearly sufficient food may be provided by each family, under favourable circumstances, for the year's consumption;* and *hitherto*, with exception of the great pasture districts and some others, turf has been abundant, more especially in what are esteemed the poorer counties of Ireland. Whatever philosophers may think of the potatoe as food, the Irishman likes and thrives on it; it makes him strong and healthy; he not only prefers it to oatmeal, but has changed from one to the other on comparison. It is a wonderful circumstance, that the whole pauper population of Ireland can thus, if fairly treated, produce their own food independently of markets and employment; and it is a most gratifying consideration, that if landlords shall act wisely, that class may be placed at once in possession of great comfort and abundance, produced by their own labour, not only without burthen either to landlord or the state, but actually contributing surplus produce for rent.

This position is asserted as the result of experience; but without taking credit for prospective improvements, it may be questionable whether, even at the existing minimum of comfort, it would be desirable to transfer the aged and infirm pauper from his family cabin to a *public establishment*. It cannot be supposed that in such a public establishment the pauper would be raised, in point of food, above the industrious class from whom he is withdrawn; in other words, above his natural level. As in point of lodging and clothing, he would be better off, if in food also, it would act as a premium on poor-houses, and obvious abuses would grow out of it; for instance, idle people managed to get into *gaols* for the winter, tempted by the *white bread* diet, which (in the former laxity of prison discipline) they contrived to sell for *whiskey* and *potatoes*. But the object of such a charity would not be merely to afford better "clothing and lodging" to the "aged and infirm," leaving their food on a par, but *on the whole* to improve their condition. That is a complex purpose; it must include a deference to the feelings of the parties themselves, as well as our abstract notion of melioration. We must, in meddling with Ireland, be cautious about theories and comparisons with other countries without intimately knowing the people.

It is to be hoped that we are in no danger of making experiments on the theories of those who, like Mr. Owen, propose to incorporate people in communities of property and occupation; it is obvious that their principle is in direct opposition to the established as well as the natural domestic condition of families; and in reference to Ireland in particular it may be assumed that such breaking up of domestic habits would be repugnant to the national taste.

The domestic affections of the Irish are very ardent; the attachment between husband and wife most affectionate; and marked, if not with peculiar, at least with exemplary fidelity. The ties between parents and children, and grand-parents and grand-children are of the most intense nature, they appear not to be weakened by time or distance; to sever those ties by placing the aged in "poor-houses," would seem a cruel officiousness, if not very urgently called for; indeed so far from desirable, that, abstractedly speaking, the happiest arragement of society would be to inspire such feelings into families if we did not find them ready made by natnre. That being the case it is obviously the duty of a statesman to accommodate his system to those properties of Irish character, and instead of taking the aged and infirm from their families, to seek to render the working families better able to support their aged and infirm members *at home*.

The State cannot pursue a wiser policy than to meliorate to the utmost those "homes," and to cherish and cultivate the associations of kindred. Again, the domestic associations of Ireland encourage religious impressions. The people are naturally devout, and perhaps in no country in the world does there exist more enthusiastic excitement in the performance of religious observances, nor any people to whom infidelity or irreligion is so uncongenial. This religious influence is promoted by the affinities of the old to the young. He who cannot trace the crimes of the lower Irish to the artificial influence of a perverted state of society has but superficial qualifications for legislating for that country, and he must little understand human nature who cannot recognise in the Irish fine materials to work on for every moral and useful end. Poor Laws, however, would not be the proper means; they would foster idleness and instil selfishness; they would mar the virtues and aggravate the vices of the Irish character; the question then would rather seem to be, can the Irish peasantry support the aged and infirm of their families?

The answer is, if for the last century of wretchedness they have contrived it, shall we not under a greatly improved condition calculate confidently on their doing so in a manner more tolerable to humanity?

It is advisable to consider in a more practical manner the actual condition of the lower class. It was not customary for landlords to let directly to the poorest class; they have generally been the under-tenants of under-tenants; their rent is in such cases the sum of the several rents above them, with the overwhelming addition of the "*Cottier's Rent*," which means something above the power of human industry to pay; to the utmost they *work it out*, but must still always be in the power of their "masters." They are slaves, and treated as such. The principle of the tenant immediately above them is *not to improve their condition*.

They are generally placed on the verge of a high road, as most convenient for collecting manure for their "garden," for stealing and for begging; the victims and the examples of sub-letting.

Nothing

* This of course applies only to cases of liberal treatment towards the small landholders. The most miserable class are subsequently treated of, and the cases of towns must be dealt with separately.

Nothing can be more miserable than the huts they inhabit or the rags that cover them. The traveller usually reproaches the "Irish Landlord" with this exhibition of barbarism; and certainly, though not the immediate instruments, the landlords are hitherto fairly chargeable with too much indifference to their fate. If these poor creatures have an acre of ground, they nevertheless eke out their own food. We must add the large body of trading mendicants, who find it more profitable to beg than to work; and this, perhaps, if it were otherwise justifiable, forms the only pretext for a Poor's Law like that of England.

It has been calculated that mendicancy costs Ireland a million and a half. But for the evil of pauperism in both those shapes remedies are discernible in the state of things before us, and may be materially promoted by the measures of Government.

First, It is desirable as far as possible to mitigate the general tendency to get rid of subtenancies.

The remedial course which humanity and policy equally recommend, would be the planting of the poorest class of dispossessed tenants on small holdings of land immediately under the head landlords, or placing them in improved villages, with potatoe ground contiguous, and common pasturage; in either case, the lot of such poor people is easily and greatly improved. More permanency of possession and more reasonableness of rent would naturally follow such a change, and as such small holders are ready to pay a higher proportional rent than the larger farmers, it is no great stretch of confidence to believe that a landlord, finding himself able without pecuniary sacrifice, by a mere arrangement of property, to enhance the value of his remaining lands, and contribute to the peace of the country (which is in itself an item of economy), will lend himself to his own and the public interest in those respects. Further, have we not reason to hope that higher motives will very generally actuate the principal proprietors to ameliorate the condition of the poor? That they can easily and cheaply do so, is demonstrable.

Such are the obvious tendencies of the present day, and Government has only to favour and not counteract them. It is perfectly possible that in a few years the lowest class of Irish may be placed in a state of security and independence for food, beyond that of any other portion of the working classes of this kingdom; the change taking place is extensive and important, and will ultimately work for good; it relates to the class of smaller farmers, as well as the pauper population; but it is with the latter only that the State has to deal.

The Irish peasant understands potatoe culture, but little else. Much pains are taken by societies and individuals to instruct him in the method of furnishing for himself those accessories on which his comforts will depend. A landlord who chooses to give (quere) three acres of ground to a family for 20*s.* an acre, and build a comfortable house, the expense of which, on an average, need not exceed 40*l.* (and for which house he will readily be repaid 10 per cent. on the expenditure in rent) places one family in a situation to command abundant food, keeping two or three cows, several pigs and some sheep (provided they are all in house), and to proceed to a gradual enrichment of his ground, to a degree that would render it garden soil of the most fertile quality, annually augmenting in productiveness. Such is the palpable interest of landlords and tenants. While this reformation is *in transitu*, the Government can aid and facilitate it, by devising labour for the surplus poor thrown on the public market for employment, which will give time to landlords to complete arrangements requiring for the execution more capital than they can at once command, and which to be effectual must be gradual.

Nothing can be more absurd than the estimates of expenditure on cottages for the poor made by benevolent societies, &c. A house and suitable offices for a pauper family is made by one of them to cost 181*l.* This is all done in the greatest ignorance of facts; that sum would on an average build four excellent cottages, with suitable offices. But however desirable it unquestionably is on principle, that the aged and infirm shall be supported in their respective families, it cannot be denied that that description of persons is a burthen on the industrious, and as far as is possible without violating principles, the pressure of that burthen should be mitigated.

If a direct provision were allotted for them by law, much imposition and abuse would inevitably creep in, but with a well-regulated system of public works, it would be easy to afford through the public officer, an augmentation of wages or a preference of employment in consideration of the number of aged and infirm with which any poor family was encumbered. Such relief, however, in all cases to be administered through the medium of labour.

But although the Poor Laws may not afford the remedy, some corrective of the admitted evil is necessary; it is impossible to contemplate the mass of unemployed population in Ireland without alarm as well as commiseration. The impression is irresistible that such a multitude in misery and want, if not made available to the service of the State, must be dangerous to its security. Even if it were not justifiable in principle or experience, and from the example of other countries, that the Government should interfere, (and it can be shown that in all these respects it is justifiable) the case of Ireland is peculiar, and must be dealt with *per se*.

The root of the evil is absenteeism; 20 years ago Mr. Forster estimated the absentee income at three millions; it must now greatly exceed that amount. The perennial abstraction of so large a proportion of the national income must impoverish the classes dependent on labour, in the same degree in which its expenditure, dispensed by resident landlords, would vivify and nourish domestic industry in its various branches.

The accursed doctrine, that the absenteeism of proprietors is corrected by "balance of trade," will not impose on any practical man. If any man doubt, let him look at Ireland. But not only is the Irish aristocracy generally absentee, but after their example, the principal

cipal and many of the middling gentry, *all who can afford it*, generally leave Ireland for a part of the year, and in that absence spend the greater part of their income. There are some honourable exceptions; but amongst those habitually resident, there exists a lamentable deficiency of means to give employment, even if the country gentlemen were by taste or habit agricultural. The principal capitalists concerned in farming, however, are graziers, who employ no labour beyond that of a few herdsmen, even for thousands of acres. The tillage of Ireland, generally speaking, is conducted on small farms, and managed chiefly by the sons of the farmers. It consists principally of grain crops and potatoes. Green crops are rarely cultivated. We may travel a hundred miles without passing a turnip field.

There is accordingly very little *summer* work; the hay harvest is as late as the farmer can make it. The potatoes and oats being in the ground and his turf cut, Paddy, having some months at his disposal, passes over to England for a few pence, works at the hay and corn harvests, and returns to Ireland with a new suit of clothes and 6*l.* or 7*l.* on the average in his pocket. This is altogether a lucrative transaction. If, as has been said, 50,000 men migrate annually in this way, here would be a clear gain of one-third of a million to Ireland, and the food of that number saved for three months. Why should Ireland seek to check this migration? the temptation of much higher wages and better living is irresistible. Paddy says that "all the wheat, and the beef, and the butter and the pigs, and the gentlemen are going to England, and by ——— he will follow them," *and we may add, "no blame to him."*

There are a great number who pass over to England with a view to permanent employment. It is calculated, that in London there are 150,000 conducting themselves with exemplary obedience to the laws, and performing all the hardest work with the most meritorious industry. An annual influx also takes place of several who intend to be sent back at the expense of the parishes.

England pays nearly 100,000*l.* annually on this score; 12,000 paupers have been passed back from London alone in a year.

During their residence, the mode of living of the Irish enables them by competition to lower, in an injurious degree, the wages of labour, and thereby severely aggravate the pressure of poor's rates. It is not, therefore, at all extraordinary that loud complaints should exist on the part of the English landholder. But what is the remedy? The law can afford none. *Employment at home*, and nothing else, can relieve England and Ireland from this common evil. But although absenteeism be the cause, residence cannot be compelled, and the relief must be obtained from taxing the land of Ireland for the support of its poor. An *exclusive* absentee tax is not easily practicable, and in order to be effectual must be attended with so many modifications as to be complicated and inquisitorial. Besides there can be no reason why land generally should not pay for the employment of the people; if that be not done in the voluntary arrangements of society, it is imperative on the State to devise means to effect it.

What country offers a finer field for labour, and what people can evince more ardent desire to be employed?

But the very magnitude of the productive power of Ireland, has with some persons formed an objection to stimulating employment; it is supposed that if capital be applied to Ireland, the exuberance of its productions, already alarming the English agriculturist and grazier, would flow in still greater profusion into an already glutted market. This is not a legitimate inference. It is not only probable, but it is founded on experience, that an improvement in the condition of the working classes leads to an immediate consumption of superior articles of food and dress, and that although the productive powers of Ireland would be increased by the application of capital, its consumption would increase in a still greater ratio.

When a new line of road, or the construction of a pier has led to the sudden formation of a small town, it is found that the former potatoe-eater becomes a consumer of wheaten bread,—a market is formed,—meat is used,—shops arise, exciseable commodities are consumed, English manufactures supersede the former ruder articles in use, and a great extension of comforts and comparative luxuries take place.

A general improvement in the mode of living of millions of the lower Irish (and there is no reason why under a better system such improvement should not be general) must imply a much larger consumption of these "necessaries of life" which are now exported.

The very meaning of that improvement must be, the enabling the people to eat more of flour and beef, and pork and butter. It must mean the creation of a new "home market" for those articles. The only legitimate corrective of the rivalry of Irish produce in the English market, consists in the *raising the condition* of the Irish population. But, admitting the great productive powers of Ireland, and the probable extension of such powers from improved agriculture, can the wretched policy be for a moment entertained of withholding capital, under terror of rendering Ireland a more formidable competitor? Ireland is a part of the kingdom, and her improvement must be viewed as an integral portion of the general prosperity.

It has been further objected to the interposition of the Government, that it teaches the people to depend on resources in their own nature temporary, and in the end aggravating the distress. Such objections might apply to the occasional and *gratuitous* aid afforded on emergencies. But even from such cases considerable permanent good has resulted, and much independent demand for labour has been produced. The character of the Irish peasant is, however, misunderstood. He is judged from the cruel circumstances to which he has been subjected. Give him a small portion of land with any degree of permanency, and he will zealously seek to work out an independency, and, with his habits of *spade labour*,

employment and support for a family may be entailed from generation to generation. Neither can any doubt exist of the ability of Ireland to repay advances for useful works. Even under the past inefficient system, 673,000*l.* was repaid by grand juries on account of mail-coach roads, leaving due and repayable a balance of less than 20,000*l.* But even if the interposition of Government had been hitherto ineffectual or even mischievous, no reason can be thence deduced against a prudent and cautious interposition on sounder principles.

But, in fact, great good has already resulted from works carried on by Government; the great impulse given to private industry, the diffusion of those natural manures so profusely supplied in Ireland, improvement of barren land, construction of better habitations, augmentation of farming capital, promotion of peace and civilization, increase of comforts, augmentation of the revenue,—all these consequences exhibit themselves wherever extensive works have been executed by intelligent engineers. Besides, the actual existence of a large territorial revenue applicable to works in Ireland, specifically calls for the interposition of Government, to correct abuses acknowledged to exist in its administration.

If it be intended to continue the powers of grand juries, the system herein proposed may be advantageously made auxiliary to the administration of those powers, and effectual checks may be applied to the execution of works and the accounting for expenditure.

Assuming it therefore to be admitted that in the particular circumstances of Ireland the interposition of the Government be desirable to direct public labour, we may ask whether on general principles there remains any ground of objection? Where a taxation already exists for the employment of labour for public purposes, and when so pressing a necessity is admitted for extending that taxation and employment, can it be justifiable in the Government to withhold its interposition? Is it not an imperative duty that it shall look to the due and efficacious administration of so important a purpose?

In the case of Scotland, under the Commissioners of Highland Roads and Bridges, £. 450,000 was expended in the formation of 875 miles of road, opening up in the most beneficial manner the more barren tracts, and advancing materially the improvement of that country. The services of that commission were gratuitous, and the whole trust may be said to have vested in Mr. Telford, whose distinguished skill and integrity justified the confidence. But this instance would not justify a corresponding practice.

In most of the great countries in Europe, the departments of public works have formed one of the most important branches of their several Governments.

In France, successive monarchs distinguished themselves by zeal for public works. So early as in the reign of Henry the Fourth, the Canal of Briare was constructed by Government, the first canal of portage, and the model of all which have since been formed in France and England.

The Canal of Languedoc followed in the reign of Louis XIV. and the enlightened administration of Colbert promoted public works to the utmost.

It is unnecessary to advert to the vast undertakings of the Emperor Napoleon, or the degree in which they facilitate the intercourse between nation and nation, and advance the interests of commerce.

In the North of Italy, the canals for irrigation, conducted by the Government, contributed more than anything else to the improvement of those countries, and their effects are still visible. But above all, the free states of Holland and America have devoted the greatest exertions to public works. In Holland, though so covered with works that it would seem that there was no room for more, that wise people are about to advance two millions for new undertakings.

The stupendous public works in the United States have drawn together and identified the interests of the most remote regions of their vast empire.* The great rival works of the Welland and Rideau canals in our own colonies are of not less importance.

It is desirable that some safe direction be given to public opinion on this critical subject, because the compulsory principle of the Poor Laws once admitted, there can be no retractation.

In order to justify the eagerness of public expectation, and prevent the precipitate adoption of some injurious expedient, in ignorance of the actual state of Ireland, Government should deliberately arrange a plan to be submitted to Parliament. It is impossible that extended powers of taxation can be safely committed to any local authorities, without danger of still greater abuse than is attributed to the management of grand juries. If money is to be levied from land, and still more, if funds are to be advanced on securities for repayment, it is indispensable that Government should constitute some responsible and competent department with the necessary powers for so great a trust. If selected with an honest view to skill, integrity and efficiency, perhaps no office was ever created which could render more important services; the qualifications suitable to such a trust should be amply paid for; a gratuitous commission would not be efficient.

In recommending a new system, the precedent of the Highland roads and bridges suggests the principle of advances of money on the security of land. It is, however, advisable that in a permanent system, no *gratuitous* aid should be afforded; it should be an inflexible principle that all money advanced by the public should be repaid, principal and interest, from the district on which it has been expended. No doubt can exist that capital judiciously applied to improvement of land in Ireland by private persons, will produce a return of from 15 to 20 per cent. Advances of money fairly applied to the improvement

* Lake Erie Canal cost 2½ millions sterling, a railway is in progress to connect the Ohio with the Atlantic.

ment of the country would therefore afford a certain reimbursement at 10 per cent. per annum including interest.

But when we take into consideration the deficiency of employment in Ireland; the declension of the staple manufacture of linen; the general superseding of hand-weaving by machinery; the want of capital in farming; the embarrassed state of landed property in general; the impoverished condition of the agricultural tenantry; the absence of the great proprietors; the periodical recurrence of distress, which, from whatever cause derived, threatens frequently the very existence of multitudes; when we contemplate the general misery which prevails and the want of internal resources to counteract it;—all these considerations emphatically warn us that some extraordinary remedy must be resorted to.

It is recommended that a Commission should be appointed immediately, under the Treasury, in which all works constructed in the whole or in part by public money, should be vested for their preservation and maintenance; that all proposals for new works should be addressed to such commission, and when a work is of sufficient magnitude or importance, their report thereon submitted to the Treasury for its sanction; that such commission should be authorized to raise money by loan for advances for works, on security for repayment, principal and interest, from the districts improved by such works. The warrants of the commission for the levy of money assessed to repay advances, might be communicated to the judges of assize, to be added to the presentments.

All works must originate in an application from some authority representing the parties to be taxed.

As it is proposed that all assessments under authority of the commissioners should be levied by a valuation, and apportioned to the interests of the parties in their respective holdings, a question may arise whether all grand jury levies should not be made on the same principle. The recommendation that a commission should issue under the Crown for the performance of all the duties before pointed out, is not with a view to increase patronage (indeed it is possible that reduction of offices, by consolidation of duties, may be the result), but because it seems unavoidable, where public money is called for, that the Government should require the superintendence and responsibility of some public authority. It is further desirable that the parties to decide on the expediency of works should be wholly independent of the district making application.

And it is requisite that the proceedings of such a commission should be in all their main points periodically reported to Parliament.

But although the intervention of a commission is unavoidable, it is advisable to call into action all local authorities, as far as they can be made available; in all original applications a district may be represented by some recognized body of persons. In the progress of works, the commission would, of course, be open to all complaints from the public as to the manner of execution, and the accounting should be strictly submitted to some local authority, and made with due publicity. All that sort of check which is derived from the vigilant observation of persons paying taxes for the work which is going on, would advantageously attach to the proposed system. On the other hand, it is not less necessary that the instrumentality for directing execution of works should be through persons unconnected with the lands to be taxed for improvement: it is not necessary to encumber this statement with the details of an organization, which may however be very simple and efficient.

It is desirable that the utmost latitude should be afforded to applications for aid. Instead of defining any particular authority to which should be limited the right of application, it seems safer not to do so; if such a body possessed the sole right to apply, it would enjoy also the power to suppress; when a discretion vests in the commission, there is no reason why grand juries for counties, magistrates at quarter sessions, baronial magistrates and vestries, selected by some moderate qualification, should not each be empowered to propose works on the part of their districts, and in cases of severe distress the commission might be authorized to undertake works at its discretion. Where works concern private property only, by analogy with the Acts of Sewers, and the Enclosure and Drainage Acts of England, a majority of the property may be held entitled to apply and to control a minority.

The only practical difficulty connected with the proposed system, would be in the *assessment* for repayment.

The present assessment of grand jury taxation is loudly complained of as unequal and unjust. It is expedient, even without any purpose of extending this taxation, that a survey and valuation should be made as the basis of a corrected taxation. If a provision be to be made for the employment of the people out of the revenues of land, it is indispensable that such a valuation should, as early as possible, be carried into effect. That being accomplished, it is not difficult to adjust taxation on an equitable principle of distribution; that principle should be, to proportion the tax to the interest of the respective parties in the land on which it is levied.

The poor's rate of England continues to be levied on occupancy, distinguished from ownership of land; it will not be contended that such a principle could be thought of *de novo* for Ireland. The complexity of tenures produces some difficulties, but these may be surmounted. The simplest means suggested would be, to calculate by the tables the interests of the several parties—landlords, intermediate tenants, and occupiers; charging the tax by a per centage on those interests.

The survey and valuation under the Tithe Composition Act may be for the present assumed as a sufficient basis for assessment.

The assessment proposed would be an income tax on the clear rental of the district.

However unfavourable and even alarming the condition of Ireland is, no doubt can exist in the mind of any man understanding the country, that by judicious management it may be

be rescued from distress; that an impulse may be given to industry which may right the country.

Ireland is essentially an agricultural country; its peasantry produce their own food, independently of markets and even of paid labour. To the possession of a portion of land sufficient for the food of his family, add some labour, and the man considers himself prosperous.

When we observe the vast tracts of unimproved land, it is obvious that a transfer of the unemployed to those tracts would afford occupancy and employment for multitudes. When we notice the miserable system of tillage, it is evident that improved agriculture would greatly augment employment, especially amongst the young: the employment of idle hands on productive and useful works would disembarrass landlords (without hardship to the parties) of an encumbrance which must interfere with beneficial arrangements of tenancy and the progress of independent improvement.

The bogs of Ireland, by aid of the natural manures,* give most vegetable products in perfection. Vast tracts of alluvial soil can be reclaimed from the sea and from lakes and rivers. In several districts extensive drainages may be profitably conducted; the innumerable natural harbours of the coast require only some moderate works of art to render them available for fisheries and commerce.

The fisheries in themselves, if duly encouraged, would afford an immense resource of the most valuable labour; so likewise a coasting trade, facilitated by the construction of landing places.

No nation in the world, with equal facility, is so deficient in maritime habits and tendencies as the Irish; the greater part of their coasting trade has been principally carried on by Scotch and Welch vessels. It is of great consequence to inspire into the Irish and encourage propensities to a seafaring life; above 1,600 miles of coast afford an extensive range for industry in all matters connected with the sea; it also affords inexhaustible manures, suitable to the improvement of the interior districts.

The differences between the proposed plan and any system of Poor Laws on the English model are these:

1st. No compulsory right is created, entitling a party to demand labour or support, taking away all grace and favour from the relief, and suggesting every possible fraud and imposition in the assertion of the right.

2dly. The employment of paupers would not be, as in England, circumscribed to parish or other local boundaries, rendering it improbable that works can be of sufficient extent to be generally productive or remunerative.

3dly. The authorities called upon to direct employment would not be broken into so many fractional parts as to baffle all superintendence of their proceedings, to favour local jobbing and preclude effectual responsibility.

4thly. The public labour could not be perverted to private purposes as in England, giving the farmer a corrupt interest in the extension and abuse of the rates.

5thly. By proportioning the reward to the labour, it would stimulate industry, instead of relaxing all its energy, as is the case in the poor's labour of England.

6thly. By assuming more of the character of independent employment arising from the voluntary offers of the workmen, it would counteract the degrading impression of compulsory pauper labour.

The permanent evil of absenteeism has some qualifications derived from the character of individual proprietors. Several amongst them are distinguished by the most liberal and even munificent acts of encouragement, and by allowances to tenants and moderation of rents. These exceptions do not suffice to remedy the general calamity of the absence of proprietors.

However, in the application of the system recommended, it is probable that it would fall most lightly on those who have been the best and most improving landlords, because on the estates of such proprietors there must exist less necessity of interposition.

It would effect an absentee tax without invidious exclusiveness; it would also, through its entire operation carry with it the remunerating corrective of applying the taxation to the rapid and effectual improvement of the property taxed.

It would guard against the misapplication of means to either public or private works of magnitude, arising from ignorance or the want of practical knowledge on the part of individuals well disposed to promote improvements.

It might be so regulated as to give a preference without loss to human labour over that of machinery. It might have the effect of applying unbounded capital to substantial improvement, under the direction of consummate skill.

It would attain the greatest result of good with the least practicable abuse of the means.

It is not intended (as was before remarked) to give the detail of a department such as proposed. Much would depend on the extent of the duties actually to be exercised. At the outset three commissioners and a secretary would probably suffice.

The expense, however, would be no burthen on the finances of the country; it would be much more than covered by the difference between the rate of interest at which money could be raised and that at which it could be lent for works in Ireland, even at the lowest expenditure which can be contemplated.

N.B.—It is not intended that the capital required for employment of the people should be obtained through an increase of public debt, nor by advances from the Consolidated Fund, but that loans should be raised on the security of the assessments of the commissioners.

June 1829. *M. FitzGerald.*

* Lime and all its compounds.

APPENDIX, No. 4.

SYSTEM of RECLAIMING BOG and MOORY MOUNTAIN PASTURE, as practised on the Crown Lands of *Pobble O'Keeffe*, County of *Cork*, by *Richard Griffith*, C. E., 1835.

THE bog and moor lands of this district may be divided into three classes; viz.

1st. Flow moss or bog, varying from five to twenty feet in depth; the surface is composed of bog moss (sphagnum) in vegetation, and a few tufts of heath; the subsoil is gravelly clay.

2dly. Close-grained mountain bog, surface covered with coarse grass, and some moss (sphagnum) in vegetation; the depth of bog varies from two to ten feet.

3dly. Shallow mountain bog or moss; depth of bog from six inches to three feet, subsoil, clay or clayey gravel; the surface frequently uneven and tufty; the vegetation consists of coarse grass, heath and rushes. The system followed in reclaiming these several varieties of bog will differ in the detail according to circumstances; but the following may be taken as the average process.

1st. *Flow moss*; this is by much the most expensive, and, in proportion to the outlay, the least remunerative subject for reclamation; and in mountain districts, where the second and third classes are most abundant, its reclamation should not be attempted, unless under very peculiar circumstances; but its surface may be drained, with a view to the improvement of the quality of the turf or peat for fuel; and if young cattle are allowed to run on it in summer, the surface will soon be found to yield a crop of coarse grass, mixed with heath.

For the reasons stated in my report on the Crown land improvements of Pobble O'Keeffe, and printed by order of the House of Commons, the 26th March 1834, the reclamation of about 20 acres, English statute measure, of the worst variety of flow bog, varying from six to 14 feet in depth, has been attempted; and, in proportion to the progress made, the success has been fully as great as could have been anticipated.

The bog was, in the first instance, surrounded by a drain to cut off the water from the adjoining hills, and also from that part which it was not intended to reclaim; drains were then cut through the bog, both lengthways and across, so as to divide it into squares, each containing four statute acres. Owing to the extreme wetness and *pulpiness* of the bog, these drains could not be opened at once, but required considerable caution and attention in the progress; an opening four feet wide and three feet deep would nearly close up in 24 hours; consequently the commencement was made by a narrow and shallow drain, which was gradually widened and deepened, and upwards of a year had elapsed before the principal drains, in *a considerable portion of the bog*, were in a sufficiently forward state to admit of the commencement of the small drains, intended to dry the surface.

The large drains, when completed, were six feet broad at top, two feet at bottom, and four feet deep.

The second class, or surface drains, were next cut parallel to each other, at the distance of eight yards. The upper part of each of these drains consisted of an excavation two feet broad and two feet deep, in taking out the stuff, care being taken to cut the sods with a broad spade or draining tool, so as not to break them; the sods were laid on the surface of the bog, to consolidate. Subsequently when the sides of the drains became more compact, by exposure to the air, a second drain, four inches broad and 12 inches deep, was cut in the centre of the bottom of the two feet drain; thus leaving a shoulder on either side 10 inches in breadth; afterwards, where the sides of the lower drains had consolidated, and exhibited no tendency to collapse, the surface sods, cut in the first instance, were placed with their upper surface downwards on top of the four-inch drains, and were supported, in that position, by the trenches or shoulders on either side; the remainder of the bog soil excavated from the drain was then thrown on top of the sods, till the excavation was filled up; and thus a covered drain or sewer was formed at the depth of three feet below the surface of the bog.

To facilitate the discharge of the water from the under drains, one open drain was cut through the centre of each of the four-acre fields, to receive the water and discharge it into the principal or surrounding drains.

Six months after the completion of the drains, the surface of the bog was dug up and left in a rough state, exposed to the air during the winter, and in the following spring it was chopped or cut by the spade into small pieces, so as to render it as fine as possible; the surface was then covered with clay to the depth of *nearly four inches*; the clay was drawn for a distance of about 600 yards by means of a movable wrought-iron rail-road,* and

* The moveable rail-road is formed of wrought-iron bars, usually about 12 feet long, two inches broad, and half an inch thick. These bars are supported on planks made from young Scotch fir, or larch trees. They are prepared by sawing off the outside slabs, on two opposite sides, and then running a cut through the centre. The planks thus formed are four inches broad at top, six inches at bottom, and half an inch thick, the length being usually 12 feet.

On each of these planks an iron bar is fixed *on edge*, by means of two cast-iron chairs, or stands, spiked to its upper side, at the distance of one foot six inches from either extremity; one end of the bar

afterwards the surface was covered with lime, in the proportion of 37 barrels, each containing 42 gallons to an acre.

On the surface thus prepared potatoes were planted, and a moderately good crop was produced.

Following the cropping of one portion of the bog, the tillable surface of which, owing to building and plantations, from four acres has been reduced to 2 A. 3 R. 13 P. The second year a portion containing 2 A. 0 R. 34 P. was again planted with potatoes, and the remainder, containing 2 R. 19 P., with turnips; the potatoe land being manured with 20 barrels of lime to the acre in compost mixed with clay, and the turnip land partly with lime, partly with peat ashes, and partly with stable dung. Owing to the unusual coldness and wetness of the season, the potatoe crop was inferior to what was anticipated; but the turnips were excellent; at present the potatoe land has been laid down and sown with oats, York meadow-grass and white clover, and at this moment, in the beginning of July, the appearance of the crop is very favourable, and it is probable will be as productive as can be expected from reclaimed bog, which usually yields abundance of *straw*, but a small weight of corn as compared to sound upland. A crop of mangel wurzel has been sown on the turnip land of last year; it also looks well; but this portion of the bog, together with other reclaimed fields now under crops of potatoes and turnips, has been dunged from the cow-house and stable; in the former four cows were stall-fed, during the last winter, on the turnips and a portion of the very small potatoes.

In calculating the amount of the expenditure, in all departments of reclamation and cultivation, from the commencement to the present time, the outlay and return per acre is as follows:—

FLOW BOG, No. 1.

	£.	s.	d.
Reclamation.			
Fencing with double ditches, per acre	–	12	–
Draining*	1	17	–
Digging up and chopping the surface, &c.	1	10	–
Covering with clay, by means of a moveable rail-road, to the depth of nearly four inches	5	10	10
Total cost of reclamation £.	9	9	10
Manure.			
Lime, 37 barrels, each 42 gallons, at 1 *s.* 6 *d.* per barrel	2	15	6
Cultivation.			
First year, cost of seed potatoes, planting and digging per acre	4	12	4
Second year ditto	4	2	4
Additional lime, 20 barrels	1	10	–
Third year, seed oats, tilling, sowing, reaping and threshing	1	18	6
Hay seed and clover	–	16	–
Fourth year, mow and sow hay	–	8	–
£.	25	12	6
Produce or Return.			
First year, value of potatoe crop, 816 stone, at 2½ *d.* per stone	8	9	2
Second year†	8	5	6
Third year, expected produce of oat crop, 105 stone, at 9 *d.* per stone £. 3, *s.* 8, *d.* 9			
Value of straw 1 – –			
Fourth year, expected value of hay crop, two tons York meadow-grass and clover hay, each 1 *l.* 10 *s.* per ton	4	8	9
	3	–	–
Total produce of one acre for four years	24	3	5
Total expenditure	25	12	6
Portion of outlay not returned at the end of four years, at which time the reclaimed bog laid down in pasture would be worth about 10 *s.* per acre £.	1	9	1

bar being fixed into one chair, and the other, passing through the second chair, projects three feet beyond it, when a second plank and rail is placed in continuation of the length beyond the first; the projecting end of the first bar is fixed into the first chair of the second plank, and by this means the joining of the rail is always placed one foot six inches beyond the termination of the planks, and thus a firm joint is obtained.

In laying down this movable rail-road, two parallel lines of planks, with rails attached, are laid on the bog, and the proper distance between each is preserved by the insertion of an half-inch square wrought-iron bar crooked or bent at both extremities, into staples attached by spikes to the under surface of each plank.

For the further strength and security of the joining of the planks, *thimbles* made of sheet iron, of a triangular form, are attached to one end of each plank, and the end of the next having been cut into the same shape, is inserted into the sheet-iron thimble. The cost of a movable rail-road of the above description is 3 *s.* 3 *d.* per yard, including both sides, and when laid level a man can with ease push on a waggon containing 18 cwt.

* The usual cost of draining is about 1 *l.* 4 *s.* per acre, but in very wet spongy bogs the extra labour of opening the drains four and five times adds considerably to the cost.

† The second crop of potatoes is usually much better than the first, but owing to the wetness of the season of the year 1834, in the west of Ireland, the produce of potatoes in the mountains was much below an average crop.

OF THE SECOND CLASS OF BOG.

This variety is naturally very superior to the first; its texture is close and compact, and when burnt it yields a considerable portion of red or yellowish red ashes, while the residuum from burnt flow bog, consists of a very small quantity of white ashes of no agricultural value. In reclaiming compact bog, a coat of two inches and a half of clay will be sufficient, while flow bog requires at least a depth of four inches.

The general system pursued in reclaiming compact bog is similar to that adopted for flow bog, but the draining is not so expensive, and the digging and chopping the surface is more easily effected.

EXPENSE of reclaiming an Average Statute Acre of compact BOG.

	£.	s.	d.
Fencing in six acre fields, with double ditches, top sown with furze seed -	–	12	–
Draining - - - - - - - - - - - - - -	1	2	–
Levelling and digging surface - - - - - - - -	1	8	–
Covering surface with clayey gravel two inches in depth, the clay being raised frem the surrounding fences, and from the bottom of the drains -	2	9	–
Making compact heaps with alternate layers of surface sods and lime, including turning and spreading, &c. - - - - - - - - -	–	12	–
TOTAL Cost of reclaiming and fencing per acre - - -	6	3	–
MANURE.			
37 barrels of lime, at 1 *s.* 6 *d.* per barrel - - - - - - - -	2	15	6
Amount of expenditure for four years; cultivation same as flow-bog or Class, No. 1. - - - - - - - - - - - - - -	13	7	2
TOTAL Expenditure on reclamation and four years' cultivation -	22	5	8
The produce of each crop raised on reclaimed compact bog will be superior, both in quantity and quality, to that raised from flow bog; but supposing the return of each crop to be the same as that from flow bog, as given above, the amount of the return on four years' crops, two of potatoes, one of oats, one of hay, will be - - - - - - - - - -	24	3	5
There will therefore be a profit of - - - - - - - - per acre in four years' cultivation, at which time the land laid down in grass will be worth about 12 *s.* 6 *d.* per acre.	1	17	9

OF THE THIRD CLASS OF BOG.

This class is described as compact bog, of variable depth, and which in its natural state yields coarse mountain pasture for cattle during the summer months; the least expensive and most profitable mode of treating this variety of bog, will be to improve the quality of the herbage, and render it capable of producing good meadow and pasture.

This can be effected by fencing, draining and liming the surface, at the following rate per statute acre.

	£.	s.	d.
Cost of fencing in six acre fields - - - - - - - - - -	–	12	–
Draining as in the flow bog, but with less, owing to the solidity of the bog	1	4	–
Covering the surface with lime, 37 barrels to the acre, at the rate of 1 *s.* 6 *d.* per barrel - - - - - - - - - - - - - -	2	15	6
TOTAL Cost of reclaiming an acre of coarse mountain pasture, so as to render it worth 10 *s.* per acre for meadow and pasture - £.	4	11	6

The foregoing details have been extracted from the accounts of the actual expenditure on the different departments of reclamation and cultivation, at the Crown farm of Pobble O'Keeffe; but it is to be observed, that the works are conducted with great system and regularity, and with strict attention to economy, and unless similar methods be taken in other places, the same results will not be obtained; but it is likewise to be observed, that the cost of lime at the Crown lands is considerable, and it is only in the summer months it can be obtained at so cheap a rate as 1 *s.* 6 *d.* per barrel: in favourable situations it may be obtained at 1 *s.* per barrel, and even less. Were this the case, the third class of bog could be fenced, drained and manured at the rate of 3 *l.* 13 *s.* instead of 4 *l.* 11 *s.* 6 *d.* per statute acre.

King William's Town, Pobble O'Keeffe, July 7, 1835. (signed) *Richard Griffith.*

Appendix, No. 5.

OBSERVATIONS on a direct STEAM NAVIGATION with *St. John's* in *Newfoundland*, by Mr. *William Bald.*

IF London be taken as the point of departure for the nearest land in America, and that shortness is the object, then the line is to go direct to Bristol or to Milford Haven, then across the channel to Waterford, and thence to the harbours of either Bantry Bay, Bear Haven, Kenmare River or Valentia. The harbours of Bantry Bay and Bear Haven are the most southerly situated on the western coast of Ireland, and they are safe, capacious and fit to receive and hold in safety ships of any size; Bearhaven harbour, in the language of that able nautical hydrographer, Murdoch Makenzie, is, " An extraordinary good harbour, and there are two entries to it."

Although this line of communication may be a most desirable one, as it would go direct from the capital of the empire, yet there are on the other hand many great and vital objects it would not at all embrace; for example, Liverpool and its extensive important commercial interests, along with the great manufacturing districts immediately behind it, combined with Glasgow and the towns of the Clyde and Forth; and these are such, that in opening a communication with the States of America, that could not be left out, or be made a secondary consideration. Therefore, attentively considering the position of Liverpool upon a map of the empire, it appears to be the very centre or point which should be chosen or adopted to embrace England and Scotland; and a straight line on an arc of the sphere drawn from Liverpool to St. John's in Newfoundland would pass through the very centre of Ireland and might go through Dublin.* But running across Ireland in this direction, three separate and distinct lines present themselves: the shortest one is to Galway Bay, the next to Clew Bay or Blacksod, and the third to Limerick, and then out by the Shannon to the Atlantic. Murdoch Makenzie says, that " the Shannon is a river of easy access, where fleets of the largest ships may ride in safety in all weathers."

The railway going through the middle of Ireland would give an equal conveniency, both to the districts of the north of Ireland as well as to those of the south; indeed the whole of the three kingdoms would be more fairly embraced by taking Liverpool as a point of departure, than by any other line which has yet been proposed or laid before the public.

The rising prosperity of Liverpool, its geographic position on the edge of the Western Sea, facing all the States of America, also its connexion with the greatest manufacturing districts of England and Scotland, and its immense commercial connexion with all the countries in the world, point it out as the very best place for departure going to America; and the railway now making from Liverpool to London will join the capital of Britain with this line of communication, connecting the states of the new continent with the old.

Distance from the Western Headlands of Ireland to St. John's in Newfoundland.

THE result of the geodesical and astronomical observations of the French men of science, assign to the circumference of the elliptic meridian 24855.84 miles; and the investigations on this interesting subject by the late Professor Playfair is 24856.72 miles to the circumference of the eliptic meridian. The circumference of the equator is 24896.16 miles, and the radius of curvature for the parallel of latitude 45° is 3956.009 miles.

The recent calculations of Professor Airy seem to indicate, that the earth is protuberant at the latitude of 45° above the ellipsoid which has the same axis.

I am ignorant of the progress, since 1830, of the very interesting geodesical operation which was then carrying forward on the continent, upon the parallel of latitude 45°, commencing at the Tour de Corduane, situated at the mouth of the Garonne and running eastwards; this operation was commenced by the Government of France at the suggestion or request of Laplace, for the purpose of obtaining additional data to investigate the figure of the earth. I am in possession of the account of this operation through the south of France, with the chain of triangles and calculations which were given me by M. Nicollet, Assistant Astronomer in the Royal Observatory at Paris, and who was engaged in this operation.

But the figure of the earth is not yet sufficiently determined so as to offer any thing but an approximate result, and the distance or length of the arc between St. John's in Newfoundland and the most seaward headlands on the west coast of Ireland, may be taken at a subtense of 26°.834 on the circle of the equator; then there will be the following very simple results, which will in general be better understood perhaps than if they were expressed in other form or terms:

$$\frac{24896.16}{360} = 69.156 \text{ English miles to a degree on the equator.}$$

26.834

* An abundance of excellent granite can be had at Dublin and also in the county of Galway, on the Atlantic side, and immense quantities of dark and gray limestone are found through the centre and interior of the country between the Bays of Galway and Dublin.

26.834 × 69.156=1855.73 English miles from the most seaward land in Mayo to St. John's in Newfoundland.

24896.16 × 26.834=668062.55744; $\frac{668062.55744}{360}$=1855.73 English miles.

Or 26.834 × 60=1610.04 Geographic miles from the most seaward part of the coast of Erris, at the harbours of Blacksod and Broadhaven in the county of Mayo, to St. John's in Newfoundland.

William Bald.

The figure of the Earth is stated by Newton at $\frac{1}{230}$; by Laplace at $\frac{1}{305}$; Playfair deduced it from numerous authorities at $\frac{1}{312 \cdot 5}$.

Maclaurin in 1740 was the first to give a complete investigation of the attraction of a homogeneous ellipsoid of revolution upon any point situated upon or within its surface; his demonstration is according to the ancient geometrical method, and is considered as one of the most beautiful specimens of that kind given in modern times. One of the first mathematicians of France paid him the following compliment:

> "Pour suivre celle que M. Maclaurin vient de donner dans son excellent Traité des Fluxions, cette methode m'a paru si belle et si savante que j'ai cru faire plaisir à mes lecteurs de la mettre ici."—*Clairaut.*

Appendix, No. 6.

OBSERVATIONS on the Reclamation of Waste Lands in *Ireland*;

From G. Poulett Scrope, Esq., M. P.

I ventured to offer to the Committee, in an early stage of their investigation, a suggestion, having in view the appropriation by Government of a limited portion of such tracts of Waste Land as shall be materially improved in value by the opening of roads through them by an expenditure of public money. Further consideration, and a review of the Evidence taken before the Committee, have led me to believe that the principle involved in that proposition ought to be carried out more extensively and generally, and I beg, therefore, to be permitted to offer to the Committee the following considerations, and the suggestion founded upon them.

The Waste Land of any country (meaning by that term the surface in its raw state, as it comes from the hand of Nature) is, I conceive, upon the soundest principles of natural right, *the property of the people collectively* (that is, of the State), given to them by the Creator for their sustenance, and should be dealt with by the State for the greatest advantage of the people.

I conceive that no State can be justified in conferring upon or continuing to any individuals an exclusive property in extensive tracts of Waste Lands, which they are neither willing nor able to reclaim or cultivate, whilst there are other individual members of the community in a state of destitution from the want of employment, who might maintain themselves upon such lands, if permitted to reclaim and cultivate them upon their own account.

I conceive that, even could such an appropriation be supposed to have received the assent of the entire people at the time when it took place, such property could only be considered as temporary and conditional on the circumstances of the people not requiring that it should be resumed by the State for their benefit; for that no former generation can be conceived to have had the power of locking up, or of authorizing individuals to lock up, for ever in an unproductive state, tracts of their country's surface, whose cultivation, though not required for the purpose at the time, might thereafter become necessary for the sustenance of an increasing population.

The principle that the property of the soil of a country is originally vested in the State, or its sovereign power, in trust for the people; that the people have a right to reclaim it from a state of waste, and cultivate it when necessary for their subsistence; and that such reclamation forms the only equitable title to a *permanent* property in land, may be found running through the law and customs of every

nation on the earth, including even the least civilized. Throughout the East, (subject to the claim of the sovereign to a proportion of the produce) "the property of cultivated land has always lodged in him who cut away the wood, cleared and tilled it, and in his heirs." These are the words of the Hindoo Institutes of Menu, a work of immense antiquity. The law of the Scandinavian nations, who occupy the North of Europe, has always required those chiefs or nobles in whom it vested a property in large tracts of land, cultivated or uncultivated, to provide a maintenance for the inhabitants of their estates; which was in effect to make the tenure of their property conditional on its being so employed as to afford a maintenance to the people born upon it. Throughout the countries over which the feudal system extended, the same principle was practically admitted; the lords and seigneurs, by universal custom, conceding a more or less durable right of occupation (by copy of Court Roll or other form) to such inhabitants as undertook to reclaim and cultivate portions of the waste land or "common" of the manor; while the Courts, acting upon the same principle, have seized every opportunity of converting the tenures so founded upon reclamation and improvement into a permanent prescriptive title. The colonists of the New World have generally proceeded on the same principle, the State affixing to its grants of waste land to individuals conditions more or less stringent, for the purpose of securing its gradual improvement and cultivation, and reserving a right to resume it, if suffered to remain beyond a certain term in a state of waste.

It is not, however, proposed, that in the case of Ireland the State should exercise what upon the abovementioned grounds may be considered to be its strict right, namely, of resuming, *without compensation* to their legal owners, such tracts of waste land as are at present retained in an unproductive state, contrary to the interests and natural rights of the community; but merely that the same principle of legislation which enters into every Act of Parliament for making a turnpike-road, rail-road or canal across the country, should be applied to the case of waste lands; and that a sufficient case being made out of prospective benefit to the public, they be appropriated by the State for the use of the people; compensation being made to their legal owners to the full of their present value, by the verdict of a jury.

I cannot conceive with what justice the proprietors of such lands can complain of their property being taken from them under such circumstances, whilst I think it self-evident that the people of Ireland will have just cause to complain of the Legislature, should it refuse their paramount claim to be permitted to maintain themselves upon such portions of the surface of their native country as are fitted by nature to afford them sustenance, in return for their labour exerted upon it, and of the law which should continue to permit individuals to lock up such tracts in a state of unproductive barrenness, while numbers of the population are starving for want of employment and food.

I would propose, therefore, that an Act should be passed authorizing the appointment by Government of a "Waste Land Commission" for Ireland, to be empowered to effect a survey and valuation of such large tracts of waste land (whether bog or mountain) as they may think it desirable to reclaim, (which has been already in great part done to their hands by the late Bog Commissioners), and to undertake the primary steps necessary for the reclamation of these tracts, such as the opening of main drains, roads, &c. The present owners of such lands to be compensated to the full of their present value, either by an allotment of the land reclaimed, or in a money rent-charge on the whole of the reclaimed lands at their option, the valuation or allotment to be finally adjudicated by a jury; and where there exist any doubts as to the proprietorship, the property of the allotment or rent-charge to be vested in trustees for the benefit of the several claimants. The Commissioners to proceed to divide the lands into lots of not less than five, nor more than 100 acres, of which they shall offer in the open market perpetuity leases, to such persons as shall be willing to undertake their further reclamation and cultivation, engaging to fence them, and erect a house and proper farm buildings on each, and to pay an annual quit-rent, which shall be sufficient, at the least to cover the interest of the sums expended by the commission, to pay the landowner's rent-charge, if any, and to maintain for ever the roads, main drains, and other necessary works of public benefit upon the land; the surplus to be applied towards the rates levied in the barony or county for similar public works.

I believe that the result of such a measure would be of incalculable benefit to Ireland. It is known that near Five Millions of acres of its cultivable land is

now

now locked up in a state of waste. Were this by degrees brought into the market upon the above-mentioned terms, the lots would, I imagine, be eagerly taken by those of the peasantry and middle classes who are possessed of a little capital, which they now have no means of employing *safely* and productively; the excessive competition for land at present placing tenants at the mercy of their landlords, who after squeezing out their little capital from them, may and very frequently do, oust them to put in another competitor, who is treated in turn in the same manner. Where capital was wanting, it would be supplied rapidly either from the economy which would be called forth by the opportunity thus held out of obtaining that most generally desired of all objects of human longings, *a farm of one's own;* or it would be supplied by loan from loan funds, or by individual capitalists in the towns, or from England, upon the security of the lease.

The double object would thus be obtained of profitable employment for both the capital which is now lying idle, or at very low interest throughout the country, and the labourers, of whom such numbers are in a state of extreme and almost constant suffering, entailing a heavy burden upon the industry of the country through their want of work. Those who know with what extraordinary ardour and energy an Irish peasant will labour when working on *his own account*, in the improvement of land, in which he possesses a durable or permanent interest, what extreme economy and industry is every where exhibited by him under such circumstances, will appreciate the extent to which these qualities and their valuable results must be developed, by a measure which will place in this most desirable position a body of very many thousand persons, who are now leading a life of constrained idleness and poverty, probably accompanied by their usual followers, discontent, insubordination and crime. The entire class of tenantry throughout Ireland must share in the advantages derivable from an enlargement of the field of agricultural industry, and a diminution of the excessive and cruel competition which now prevails for even the insecure and temporary occupation, on the most extortionate terms, of any acre of cultivable soil that may be in the market.

The effect of such a change on the state of society in Ireland, as determined by the relations between landlord and tenant, would be rapid and incalculably beneficial, and coupled with a liberal expenditure of public money in such works as the Navigation of the Shannon, &c. and the extension of the powers of the Board of Public Works, as well as the other measures recommended by the Committee, would greatly facilitate the working of such a system of Poor Laws as the almost universal voice of the country is now demanding and will undoubtedly carry; a system which cannot stop short of the principle of securing a maintenance to every well-conducted member of the community.

I need scarcely allude to the benefit, moral and political, which would result to Ireland and Irish society, from the creation of a numerous class of small landowners, or independent yeomen, such as the proposed measure tends speedily to raise up. In Ireland the number of landed proprietors is smaller than in any other country in the world. In France, more than 20 millions, or near two-thirds of the entire population, belong to the class of landed proprietors; in Norway and Sweden about one-third; while in Ireland, with a population of eight millions, there are considered to be under 10,000 landowners, and a considerable number of these are neither natives of, nor resident in, the country. The absolute prostration to which the law of Ireland condemns the cultivators of its soil beneath the irresponsible and unconditional power of its proprietors, I believe to be at the bottom of all the misery, turbulence and disorganization which desolate that unhappy country, and a far more influential cause, in my opinion, of its distracted state, than even its division into rival religious sects; a division, the evils of which are much more closely connected with circumstances of land occupation and ownership than is generally supposed or openly acknowledged. Concede the just claims of the mass of the people to maintain themselves by the cultivation of the fertile soil of their country on equitable and reasonable terms, and their religious differences will be no more likely to create political or social dissension among them, than is to be found between the Protestant and Catholic fellow-subjects of Prussia, Belgium, Austria, and other States of the Continent.

Appendix, No. 7.

SKETCH of a System of Poor Colonies, for Employment of Labourers and Reclamation of Waste Lands in *Ireland.*

By *Winston Barron*, Esq. M. P.

IT is suggested that a plan similar to that pursued in Holland and Belgium, for maintaining and employing the destitute poor, might be adopted in Ireland, with great advantage to that country, and also to England. I am aware that the original plan adopted in those countries did not succeed to the full extent it was expected, and hence some prejudice has arisen against "Poor Colonies." The original plan was, to allot to the poor certain small farms, about seven acres British to five individuals: to advance capital for building a house, and the outlay of the first year; then to levy a certain portion of the produce yearly, increasing according as the ground became reclaimed, until all capital and first cost of the Waste Land was repaid to the benevolent society who undertook the management of the funds collected. It was soon found that improvidence and bad management retarded improvement, notwithstanding the strictest surveillance, and the original plan was therefore altered. This altered plan has completely succeeded.

The following is a mere outline of the improved and successful plan:—

The colonies contain each about 1,000 persons*. There is an intelligent educated person, perfectly conversant with farming and the management of landed property in all its details, placed as a steward or manager over each colony, with one or two assistants, according to circumstances. These are the only paid persons on the establishment, except the paupers.

The establishment is conducted very much on the system of a military establishment, with regular grades of rank and pay, according to good conduct and intelligence. The poorest ground is always bought for the colony, and is reclaimed by the colonists as paid labourers, in gangs, and a great deal performed by task-work; the latter is preferred. All capital, houses, stock, &c. are the property of the society.

Good conduct is rewarded by promotion and distinctions of various kinds. Bad conduct is punished by various privations, and if persevered in, by expulsion.

A regular account is kept of all expenses, and books balanced every month.

There is a head committee that controls all accounts, and gives orders for all money required.

I would propose that this plan should be tried merely as an experiment at first by one colony of 1,000 persons in each of the four Provinces of Ireland. I calculate from my own knowledge and from minute inquiry into the value of waste land that is reclaimable, also from the price of labour in Ireland, that this experiment might be tried for 50,000 *l.*

I would propose that about 2,000 acres of waste land should be bought for each colony, under the control of the Board of Works, by a county charitable board, to be elected by the same persons that elect Members of Parliament; that one-fourth of this board should go out every year, but to be eligible to be re-elected. All accounts to be controlled by the Board of Works in Ireland. An inspector should be sent twice a year by the Board of Works to visit each colony.

The capital for the purchase of land, for buildings, cattle, farming implements, &c. &c. to be advanced by the Board of Works, under the order of the county board made at a general meeting, held by public notice.

The local board should have the power of appointing an acting committee to superintend the establishment.

That the clergy of the district, of every denomination, as also the magistrates, be, *ex officio*, members of said local committee.

That the money should be advanced at the rate of three per cent. interest.

That either two, three or more counties may join in any one of these colonies; each county appointing an equal number of persons to the county as a local board.

The

* Some of the Dutch Colonies contain upwards of 2,000 persons.

The local board to appoint the head manager, or bailiff, of each colony, he being an experienced agriculturist.

The local committee to appoint and promote all the inferior officers.

The reclamation of the land to be the chief object of the colonists.

Manual labour and task-work to be as much as possible adhered to, but not exclusively.

A school, for both children and adults, to be kept in every colony.

That in each school, agriculture, or practical farming, should form a prominent branch of instruction.

That each person in the colony should attend his own place of worship every Sunday, and oftener, if he should so wish.

That a system of rewards and punishments, and promotion or degradation, should be laid down by the local board, for the committee to act on.

The admission of paupers to the colony to be regulated by the local board.

Repayment of Money.

That for the first seven years only the interest of the money advanced should be repaid by the counties to which it is advanced. This would be for one colony of 1,000 persons =

The Expenditure to be paid by Counties per annum for the first seven years.

Interest - - -	£. 375
Head Manager - -	100
Schoolmaster - -	40
Deputy Manager -	50
One Assistant ditto -	30
	£. 595

The above 595 *l.* per annum to be raised by presentment off each county, or its proportion off each county, if two or more counties join in the colony.

After seven years, the colony, having the land reclaimed, should be equal to pay the interest and expenses itself, as was done in Holland on much inferior land to that to be found waste in Ireland.

After the first ten years, a sinking fund should be established to pay off the principal advanced by the Board of Works; and supposing the reclaimed land should then be worth only ten shillings an acre, the whole of the principal, interest and expenses would be paid in about twenty years from that time, and the county would have an estate, for charitable purposes, of 2,000 acres of land reclaimed, and in a high state of improvement. The county would also have the great advantage of the example of a well-cultivated farm, and the method best adapted for reclaiming wastes with profit. Besides all this, a thousand of the poorest persons in the district would be relieved, and they themselves reclaimed from idleness, bad habits and wretchedness, to industry, comfort and usefulness.

The cost of doing all this would not amount to 12 *s.* per head per annum; and even that cost would continue but for seven years; whilst, in the end, an estate would be realized for charitable purposes of the value of 1,000 *l.* per annum, at the low rental of ten shillings per acre.

The board to have power to lease small farms, suited to spade husbandry only, to the most deserving of the colonists, after seven years' experience of their integrity and industry, at a moderate rent and under strict covenants, as yearly tenants; this to be a reward of good conduct.

Rate of labour to be settled by local committees, subject to the approval of the board.

All the colonists to be lodged and fed in the establishment.

An Act of Parliament should be procured, and a clause inserted in it, to empower landlords to sell waste lands to the county boards for the above purposes: Colonists allowed to purchase the fee of land, at 21 years' purchase on the amount of their rent.

A Savings Bank to be established in each colony.

The several details of rewards, of punishments, of hours of labour, of internal police, of diet, of control, &c. &c. are not here given.

Many will be frightened at this plan, because a tax is to be levied, however light, for the employment of the poor. It is also proposed to levy half this tax off the occupying tenant, and half off the landlord holding the beneficial interest in the land, after a plan to be hereafter proposed. Those who are alarmed at this plan should recollect, that all the power is given by it to those who pay the tax, and little or no abuse can therefore arise from it; and 2dly, no pauper is to have

any power to demand entrance into the colony as a matter of right; he is to be elected as a favour, on account of his good conduct; and 3dly, no man, woman or child is to remain in the colony without contributing by his labour to his own support, and conforming to the strict discipline of the establishment, and also conducting himself with decency and propriety in language and conduct.

The expense for one county, of one such establishment as this, of 1,000 colonists, if said county contained 300,000 acres of land, would not amount to one half-penny per acre yearly for seven years. It is thought that this very paltry sum could not be objected to by the most timid or hard-hearted, for such an object, and particularly under such control, and a complete system of checks.

N° 1.

Map of the

BRITISH EMPIRE

Exhibiting the most level, the shortest and least expensive

Line of Railroad,

ACROSS IRELAND FROM DUBLIN TO GALWAY BAY,

with Lines to CLEW BAY *and* BROAD HAVEN *in Mayo,*

shewing also the direct line across Ireland, taken from Hamburgh

LIVERPOOL TO St JOHNS IN AMERICA

on an Arc of the Sphere.

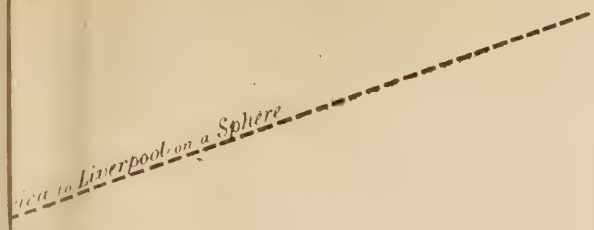
By William Bald, Civil Engineer, F.R.S.E. M.R.I.A &c.
1835.

Amsterdam

FRANCE

Paris

Ordered by the House of Commons to be printed, 27 August, 1835.
James & Luke G. Hansard & Sons, Printers.
Standidge & Lemon . Litho



P E

Nº 2.

Map shewing

St. JOHNS in NEW FOUNDLAND in AMERICA,

IRELAND and ENGLAND,

The straight Lines on a Sphere across the

ATLANTIC OCEAN.

William Bald, Civil Engineer, F.R.S.E. &c.

1835.

A SURVEY OF
part of the
COUNTY OF ROSCOMMON.
shewing the Course of the
PROPOSED CANAL
between
LOUGH GARA and the RIVER SHANNON
near
CARNADOE BRIDGE

Surveyed and Levelled by Chas Tarrant C E

1835.

573. Ordered by The House of Commons to be Printed, 27th Aug.t 1835.
James and Luke G. Hansard & Sons, Printers.
S. Arrowsmith, Lithog.

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N. B.—In the following Index, the *Figures* following the Names refer to the Questions of the Evidence; and *App. p.* to the page of the Appendix.

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